北京中航易购信息服务有限公司



【“运价云”接口说明】

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# 易购云 Open API概述/说明

易购云Open API简称“易购云开放应用接口”。请求数据为标准XML格式，响应数据支持标准XML格式和JSON(JavaScript Object Notation)格式。

## Open API作用及优点

通过Open API 的XmlSubmit接口方法可完成机票航班、运价相关功能的开发，一次引用即可完成权限允许范围内的功能请求，

调用简单，灵活，所有的调用请求只通过一个入口XmlSubmit（不同请求XML结构）既可完成。任何种程序语言只要能访问WebService 就可调用开发，不需要插件。

如果您是第一次调用Open API接口作相关开发，请按手册目录顺序自上而下查看本手册。

“调用方法”里描述了如何运用Open API接口作开发。

“功能详解”里描述了调用Open API可以完成的功能，并说明了每一个功能的详细请求参数。

# 准备

## 接口调试工具

推介工具：TestWSDL.exe

工具说明：.NET自带，小而实用，不需要安装使用简单。

使用心得：在调用开发前可以对接口作调用测试以了解熟悉接口参数及返回数据，在开发过程中如遇到接口返回错误信息，可以用WSDL工具作相同的调用操作并查看结果，灵活使用有助于在开发过来程中的异常问题。

## XML工具

推介工具：XML Spy

工具说明：XML Spy 是一个集成了编辑、检验、预览等多项功能的商业性 XML 开发软件，支持 XML 文档所见即所得的编辑方式、XPATH语法查询、支持 UNICODE 、多字符集，支持格式良好的和有效的 XML 文档，同时提供了强有力的样式表设计。

使用心得：因为Open API接口参数和返回数据都为XML结构，所以有一个强大实用的XML工具对开发和解决问题有大帮助，它对XML数据结构有检验、XPATH检索、视图查看等功能很方便。

## XPATH语法

XPATH简介：XPath是一门在 XML 文档中查找信息的语言。其有语法、运算符、函数等，是 W3C XSLT 标准的主要元素。使用路径表达式来选取 XML 文档中的节点或者节点集。使用XPATH读取XML很灵活，读取大量XML数据的性能、效率和代码量都优于一般XML处理方法。

于由篇幅较长，且本文档着重介绍接口，详细XPATH语法介绍请到：[w3sc](http://www.w3school.com.cn/xpath/index.asp)[hool](http://www.w3school.com.cn/xpath/index.asp)参考。

C#很好的集成了XPATH，using System.Xml;

JAVA需要javax.xml.xpath包，详细请参考：[IBM:Java 语言的 XPath API](http://www.ibm.com/developerworks/cn/xml/x-javaxpathapi.html)

# 一次接口调用实例

## Open API接口的引用

以WebServices方式引用，

地址：http://api服务地址/aois/ysta.asmx

引用接口方法：XmlSubmit。

## Open API接口统一方法XmlSubmit

接口方法：public string XmlSubmit(string identity, string request, string filter)

参数：

Identity：身份认证信息

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **根节点** | **<Identity\_1\_0>** | | | | |
| **子节点** | **节点名称** | **说明** | **数据类型** | **长度** | **是否必填** |
| **Operator** | 登录操作工号 | 字符 |  | Y |
| **Pwd** | 密码 | 字符 |  | Y(Pwd与PassportID必填其中一项) |
| **PassportID** | 身份凭证号 | 字符 |  | Y(通过PassportID认证模式，不需填入Pwd) |
| **Terminal** | 终端号 | 字符 |  | N |
| **UserType** | 登陆身份类型 | 字符 | 固定值：Platform | Y |
| **样例数据** | <Identity\_1\_0><Operator>admin</Operator><PassportID>FDSAGFGFJHGLKKJHLREWQREWQTYRIYUYTOUY</PassportID><Terminal></Terminal><UserType>Platform</UserType></Identity\_1\_0> | | | | |

<Identity\_1\_0><Operator>admin</Operator><PassportID>FDSAGFGFJHGLKKJHLREWQREWQTYRIYUYTOUY</PassportID><Terminal></Terminal>**<UserType>Platform</UserType>**</Identity\_1\_0>

request：结构化查询条件，请参考功能接口各方法说明

filter：过滤条件，请参考功能接口各方法说明

## Open API调用实例（C#）

＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝＝

YeeGo.OpenAPI.FareCloud api = new YeeGo.OpenAPI.FareCloud();

//身份XML

StringBuilder identity = new StringBuilder();

identity.Append("<?xml version=\"1.0\" encoding=\"utf- 8\"?>");

identity.Append("<Identity\_1\_0>");

identity.Append("<Operator>UserName</Operator>"); //登录账号

identity.Append("<Pwd>PassWord</Pwd>"); //登录密码

identity.Append("<Terminal></Terminal>"); //终端号

identity.Append("<UserType>Platform</UserType>");

identity.Append("</Identity\_1\_0>");

//请求XML 这里我们调用1.3版航班查询QueryWebFlights\_1\_3

StringBuilder request = new StringBuilder("<?xml version=\"1.0\"?>");

request.Append("<QueryWebFlights\_1\_3>");

request.Append("<From>PEK</From>"); // 起飞机场三字代码

request.Append("<Arrive>DLC</Arrive>"); // 到达机场三字代码

request.Append("<Date>2014-03-30</Date>"); // 航班日期

request.Append("<Carrier></Carrier>"); // 航空公司两字代码

request.Append("<Time>0000</Time>"); // 起飞时间

request.Append("<StopType>D</StopType>"); // D:直飞（默认） N:所有

request.Append("<Option/>"); // 系统保留

request.Append("<CmdShare>0</CmdShare>"); // 是否查询共享航班,0:不查询共享航班

request.Append("<PrdType>R</PrdType>"); // 产品类型

request.Append("</QueryWebFlights\_1\_3>");

//过滤条件XML

StringBuilder filter = new StringBuilder("<Filter\_1\_0><Compress>N</Compress></Filter\_1\_0>");//生产环境建议Compress=Y

string resStr = api.XmlSubmit(identity.ToString(), request.ToString(), filter.ToString()); //访问接口并返回请求结果resStr

//resStr为一个XML描述，如果根节点为ErrorInfo\_1\_0则为错误描述，否则为请求参数request XML的根节点，也就是此例中的QueryWebFlights\_1\_3

XmlDocument xmlDoc = new XmlDocument();

xmlDoc.LoadXml(resStr);

//判断是否返回错误

if (xmlDoc.DocumentElement.Name == "ErrorInfo\_1\_0" && xmlDoc.Name != "")

{

//错误描述

XmlElement rx = xmlDoc.DocumentElement;

string errMsg = rx["Content"].InnerText.Replace("\r", "").Replace("\n", "").ToString();

//输出错误信息

throw new Exception("10001：查询航班出错，详细：" + errMsg);

}

else

{

//接口请求成功

//处理航班查询结果

}

# 登陆（身份认证）

## DoLogin\_2\_0登陆身份认证接口（加密接口）

登录(身份认证)接口,加密登录密码信息。

说明：也可使用普通认证模式，登录身份信息拼写方法参见”3.3 OpenAPI调用实例”。

### 请求参数说明

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **根节点** | **<DoLogin\_2\_0>** | | | | |
| **子节点** | **节点名称** | **说明** | **数据类型** | **长度** | **是否必填** |
| **<Operator>** | 登录操作工号 | 字符 |  | Y |
| **<Terminal>** | 终端号 | 字符 |  | N |
| **<UserType>** | 登陆身份类型，填写：Platform | 字符 |  | Y |
| **<Authenticator>** | 认证码 | 字符 |  | Y |
| **样例数据** | <?xml version="1.0" encoding="utf-8"?><DoLogin\_2\_0><Operator>admin</Operator><Terminal/><UserType>Platform</UserType><Authenticator>DSAFDSAFDSAFDSAFEWQR</Authenticator></DoLogin\_2\_0> | | | | |

**认证码取值算法：**

Authenticator = DES(key, Operator + "$" + Base64Encrypt(Password))

加密算法使用DES, key = Password，如key长度不足8位，末尾以空格补至8位。

### 返回参数说明

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **根节点** | **<DoLogin\_2\_0>** | | | | |
| **子节点** | **节点名称** | **说明** | **数据类型** | **长度** | **是否必填** |
| **<Operator>** | 登录操作工号 | 字符 |  | Y |
| **<PassportID>** | 身份凭证号 | 字符 |  | Y |
| **样例数据** | <DoLogin\_2\_0><Operator>admin</Operator><PassportID>JLKJLKJLJLDSAFDSAFDSAFDSAFEWQR</PassportID></DoLogin\_2\_0> | | | | |

如失败见“标准错误结果文档”。

# 火车票查询模块

## QueryTrainTicket\_1\_0火车余票查询接口

此接口用于查询火车余票并返回价格。

### 请求参数说明

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **根节点** | **<QueryTrainTicket\_1\_0>** | | | | |
| **子节点** | **节点名称** | **说明** | **数据类型** | **长度** | **是否必填** |
| **<FromStation>** | 出发车站，例如：北京 | 字符 | 20 | 是 |
| **<ArriveStation>** | 到达车站，例如：上海 | 字符 | 20 | 是 |
| **<TravelTime>** | 出发日期，例如：2015-04-01 | 字符 | 10 | 是 |
| **<TrainCode>** | 车次，例如G105 | 字符 | 10 | 否 |
| **<TrainType>** | 车次类型，例如：G，见枚举类型(注，该查询条件与TrainCode互斥，如TrainCode传值，则TrainType查询条件不生效) | 字符 | 1 | 否 |
| **<TrainSeatType>** | 车次类型，例如：YW，见枚举类型 | 字符 | 2 | 否 |
| **<OnlyLowPrice>** | 是否只查最低价格，Y/N | 字符 | 1 | 否 |
| **样例数据** | <QueryTrainTicket\_1\_0>  <FromStation>北京</FromStation>  <ArriveStation>上海</ArriveStation>  <TravelTime>2016-06-16</TravelTime>  <TrainCode>G105</TrainCode>  <TrainType></TrainType>  <TrainSeatType></TrainSeatType>  <OnlyLowPrice>N</OnlyLowPrice>  </QueryTrainTicket\_1\_0> | | | | |

### 过滤参数说明

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **根节点** | **<Filter\_1\_0>** | | | | |
| **子节点** | **节点名称** | **说明** | **数据类型** | **长度** | **是否必填** |
| **<Compress>** | 是否返回压缩格式数据(deflate压缩格式)  N 返回原始结果(默认)  Y 返回压缩结果(推荐) | 字符 | 1 | N |
| **样例数据** | <Filter\_1\_0><DataSource>SYS</DataSource><ReturnType>B</ReturnType><Compress>Y</Compress></Filter\_1\_0> | | | | |

### 返回参数说明

|  |  |
| --- | --- |
| **根节点** | **{** |
| **子节点** | **"结果代码": " (000:正常; 其他:异常)",**  **"信息": "",**  **"车次列表": [**  **[**  **"车次",**  **"车次类型名称",**  **"车次类型代码",**  **"出发站",**  **"出发日期(yyyy-MM-dd)",**  **"出发时间(HH:mm)",**  **"到达站",**  **"到达日期(yyyy-MM-dd)",**  **"到达时间(HH:mm)",**  **"历时(分钟)",**  **"始发站",**  **"始发时间(HH:mm)",**  **"终点站",**  **"终点时间(HH:mm)",**  **"剩余座位张数(不包含无座)",**  **[**  **"座位类型",**  **"座位名称",**  **"座位代码",**  **"座位数量",**  **"最低价格",**  **[**  **"上铺/座位价格",**  **"中铺价格",**  **"下铺价格"**  **]**  **]**  **]**  **],** |
| **枚举** | **座位类型:** |
| **SZ :0(商务座),**  **TZ : 1(特等座),**  **R1 : 2(一等座),**  **R2 : 3(二等座),**  **GW : 4(高级软卧),**  **RW : 5(软卧),**  **YW : 6(硬卧),**  **RZ : 7(软座),**  **YZ : 8(硬座),**  **WZ : 9(无座),**  **OT : 10(其他)**  **注:下单时需要将所选座位对应的数字编码传入** |
| **车次类型:** |
| **G : "高铁",**  **C : "城际",**  **D : "动车",**  **Z : "直达",**  **T : "特快",**  **K : "快速",**  **P : "普通",**  **O : "其他"** |
| **样例数据** | {  "return\_code": "000",  "message": "",  "train\_data": [  [  "G101",  "高铁",  "G",  "北京南",  "2015-05-20",  "07:00",  "上海虹桥",  "2015-05-20",  "12:37",  "337",  "北京南",  "",  "上海虹桥",  "",  "501",  [  [  "SZ",  "商务座",  "0",  "3",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "26",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "472",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G105",  "高铁",  "G",  "北京南",  "2015-05-20",  "07:36",  "上海虹桥",  "2015-05-20",  "13:21",  "345",  "北京南",  "",  "上海虹桥",  "",  "1068",  [  [  "SZ",  "商务座",  "0",  "15",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "53",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "1000",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G11",  "高铁",  "G",  "北京南",  "2015-05-20",  "08:00",  "上海虹桥",  "2015-05-20",  "13:09",  "309",  "北京南",  "",  "上海虹桥",  "",  "990",  [  [  "SZ",  "商务座",  "0",  "0",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "44",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "946",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G107",  "高铁",  "G",  "北京南",  "2015-05-20",  "08:06",  "上海虹桥",  "2015-05-20",  "13:40",  "334",  "北京南",  "",  "上海虹桥",  "",  "974",  [  [  "SZ",  "商务座",  "0",  "24",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "103",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "847",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G111",  "高铁",  "G",  "北京南",  "2015-05-20",  "08:40",  "上海虹桥",  "2015-05-20",  "14:20",  "340",  "北京南",  "",  "上海虹桥",  "",  "501",  [  [  "SZ",  "商务座",  "0",  "5",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "0",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "496",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G1",  "高铁",  "G",  "北京南",  "2015-05-20",  "09:00",  "上海虹桥",  "2015-05-20",  "13:48",  "288",  "北京南",  "",  "上海虹桥",  "",  "893",  [  [  "SZ",  "商务座",  "0",  "13",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "55",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "825",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G113",  "高铁",  "G",  "北京南",  "2015-05-20",  "09:05",  "上海虹桥",  "2015-05-20",  "14:29",  "324",  "北京南",  "",  "上海虹桥",  "",  "934",  [  [  "SZ",  "商务座",  "0",  "23",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "142",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "769",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G41",  "高铁",  "G",  "北京南",  "2015-05-20",  "09:15",  "上海虹桥",  "2015-05-20",  "14:46",  "331",  "北京南",  "",  "杭州东",  "",  "554",  [  [  "SZ",  "商务座",  "0",  "8",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "69",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "477",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G115",  "高铁",  "G",  "北京南",  "2015-05-20",  "09:33",  "上海虹桥",  "2015-05-20",  "15:08",  "335",  "北京南",  "",  "上海虹桥",  "",  "922",  [  [  "SZ",  "商务座",  "0",  "24",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "132",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "766",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G117",  "高铁",  "G",  "北京南",  "2015-05-20",  "09:44",  "上海虹桥",  "2015-05-20",  "15:42",  "358",  "北京南",  "",  "上海虹桥",  "",  "523",  [  [  "SZ",  "商务座",  "0",  "5",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "26",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "492",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G13",  "高铁",  "G",  "北京南",  "2015-05-20",  "10:00",  "上海虹桥",  "2015-05-20",  "14:55",  "295",  "北京南",  "",  "上海虹桥",  "",  "483",  [  [  "SZ",  "商务座",  "0",  "5",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "0",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "478",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G119",  "高铁",  "G",  "北京南",  "2015-05-20",  "10:05",  "上海虹桥",  "2015-05-20",  "15:50",  "345",  "北京南",  "",  "上海虹桥",  "",  "512",  [  [  "SZ",  "商务座",  "0",  "5",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "23",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "484",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G121",  "高铁",  "G",  "北京南",  "2015-05-20",  "10:28",  "上海虹桥",  "2015-05-20",  "16:19",  "351",  "北京南",  "",  "上海虹桥",  "",  "490",  [  [  "SZ",  "商务座",  "0",  "5",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "0",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "485",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G15",  "高铁",  "G",  "北京南",  "2015-05-20",  "11:00",  "上海虹桥",  "2015-05-20",  "15:55",  "295",  "北京南",  "",  "上海虹桥",  "",  "463",  [  [  "SZ",  "商务座",  "0",  "5",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "0",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "458",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G125",  "高铁",  "G",  "北京南",  "2015-05-20",  "11:10",  "上海虹桥",  "2015-05-20",  "16:59",  "349",  "北京南",  "",  "上海虹桥",  "",  "468",  [  [  "SZ",  "商务座",  "0",  "5",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "26",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "437",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "1461",  "普通",  "P",  "北京",  "2015-05-20",  "11:54",  "上海",  "2015-05-21",  "08:11",  "1217",  "北京",  "",  "上海",  "",  "1043",  [  [  "YW",  "硬卧",  "6",  "43",  "304.50",  [  "283.5",  "294.5",  "304.5"  ]  ],  [  "YZ",  "硬座",  "8",  "1000",  "156.50",  []  ],  [  "WZ",  "无座",  "9",  "179",  "156.50",  []  ]  ]  ],  [  "G129",  "高铁",  "G",  "北京南",  "2015-05-20",  "12:13",  "上海虹桥",  "2015-05-20",  "17:48",  "335",  "北京南",  "",  "上海虹桥",  "",  "918",  [  [  "SZ",  "商务座",  "0",  "13",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "82",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "823",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G131",  "高铁",  "G",  "北京南",  "2015-05-20",  "12:27",  "上海虹桥",  "2015-05-20",  "18:14",  "347",  "北京南",  "",  "上海虹桥",  "",  "509",  [  [  "SZ",  "商务座",  "0",  "5",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "26",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "478",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G133",  "高铁",  "G",  "北京南",  "2015-05-20",  "12:49",  "上海虹桥",  "2015-05-20",  "18:25",  "336",  "北京南",  "",  "上海虹桥",  "",  "942",  [  [  "SZ",  "商务座",  "0",  "12",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "82",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "848",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G135",  "高铁",  "G",  "北京南",  "2015-05-20",  "13:06",  "上海虹桥",  "2015-05-20",  "18:53",  "347",  "北京南",  "",  "上海虹桥",  "",  "964",  [  [  "SZ",  "商务座",  "0",  "25",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "171",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "768",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G137",  "高铁",  "G",  "北京南",  "2015-05-20",  "13:40",  "上海虹桥",  "2015-05-20",  "19:20",  "340",  "北京南",  "",  "上海虹桥",  "",  "939",  [  [  "SZ",  "商务座",  "0",  "12",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "80",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "847",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G3",  "高铁",  "G",  "北京南",  "2015-05-20",  "14:00",  "上海虹桥",  "2015-05-20",  "18:48",  "288",  "北京南",  "",  "上海虹桥",  "",  "900",  [  [  "SZ",  "商务座",  "0",  "26",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "139",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "735",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G43",  "高铁",  "G",  "北京南",  "2015-05-20",  "14:05",  "上海虹桥",  "2015-05-20",  "19:36",  "331",  "北京南",  "",  "杭州东",  "",  "768",  [  [  "SZ",  "商务座",  "0",  "26",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "114",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "628",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G139",  "高铁",  "G",  "北京南",  "2015-05-20",  "14:16",  "上海虹桥",  "2015-05-20",  "19:49",  "333",  "北京南",  "",  "上海虹桥",  "",  "918",  [  [  "SZ",  "商务座",  "0",  "24",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "102",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "792",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G141",  "高铁",  "G",  "北京南",  "2015-05-20",  "14:34",  "上海虹桥",  "2015-05-20",  "20:32",  "358",  "北京南",  "",  "上海虹桥",  "",  "955",  [  [  "SZ",  "商务座",  "0",  "13",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "85",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "857",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G17",  "高铁",  "G",  "北京南",  "2015-05-20",  "15:00",  "上海虹桥",  "2015-05-20",  "19:57",  "297",  "北京南",  "",  "上海虹桥",  "",  "905",  [  [  "SZ",  "商务座",  "0",  "17",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "149",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "739",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G143",  "高铁",  "G",  "北京南",  "2015-05-20",  "15:10",  "上海虹桥",  "2015-05-20",  "21:07",  "357",  "北京南",  "",  "上海虹桥",  "",  "952",  [  [  "SZ",  "商务座",  "0",  "26",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "169",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "757",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G145",  "高铁",  "G",  "北京南",  "2015-05-20",  "15:30",  "上海虹桥",  "2015-05-20",  "21:12",  "342",  "北京南",  "",  "上海虹桥",  "",  "939",  [  [  "SZ",  "商务座",  "0",  "13",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "84",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "842",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G19",  "高铁",  "G",  "北京南",  "2015-05-20",  "16:00",  "上海虹桥",  "2015-05-20",  "21:16",  "316",  "北京南",  "",  "上海虹桥",  "",  "907",  [  [  "SZ",  "商务座",  "0",  "26",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "123",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "758",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G147",  "高铁",  "G",  "北京南",  "2015-05-20",  "16:05",  "上海虹桥",  "2015-05-20",  "21:50",  "345",  "北京南",  "",  "上海虹桥",  "",  "938",  [  [  "SZ",  "商务座",  "0",  "24",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "103",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "811",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G149",  "高铁",  "G",  "北京南",  "2015-05-20",  "16:25",  "上海虹桥",  "2015-05-20",  "22:24",  "359",  "北京南",  "",  "上海虹桥",  "",  "946",  [  [  "SZ",  "商务座",  "0",  "13",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "85",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "848",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G21",  "高铁",  "G",  "北京南",  "2015-05-20",  "17:00",  "上海虹桥",  "2015-05-20",  "22:39",  "339",  "北京南",  "",  "上海虹桥",  "",  "929",  [  [  "SZ",  "商务座",  "0",  "26",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "139",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "764",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G153",  "高铁",  "G",  "北京南",  "2015-05-20",  "17:10",  "上海虹桥",  "2015-05-20",  "22:51",  "341",  "北京南",  "",  "上海虹桥",  "",  "980",  [  [  "SZ",  "商务座",  "0",  "24",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "102",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "854",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "G157",  "高铁",  "G",  "北京南",  "2015-05-20",  "17:45",  "上海虹桥",  "2015-05-20",  "23:23",  "338",  "北京南",  "",  "上海虹桥",  "",  "901",  [  [  "SZ",  "商务座",  "0",  "13",  "1748.00",  []  ],  [  "R1",  "一等座",  "2",  "85",  "933.00",  []  ],  [  "R2",  "二等座",  "3",  "803",  "553.00",  []  ],  [  "WZ",  "无座",  "9",  "0",  "553.00",  []  ]  ]  ],  [  "T109",  "特快",  "T",  "北京",  "2015-05-20",  "19:33",  "上海",  "2015-05-21",  "10:44",  "911",  "北京",  "",  "上海",  "",  "150",  [  [  "RW",  "软卧",  "5",  "29",  "497.50",  [  "476.5",  "-",  "497.5"  ]  ],  [  "YW",  "硬卧",  "6",  "0",  "325.50",  [  "304.5",  "315.5",  "325.5"  ]  ],  [  "YZ",  "硬座",  "8",  "121",  "177.50",  []  ],  [  "WZ",  "无座",  "9",  "96",  "177.50",  []  ]  ]  ],  [  "D321",  "动车",  "D",  "北京南",  "2015-05-20",  "21:23",  "上海",  "2015-05-21",  "09:12",  "709",  "北京南",  "",  "上海",  "",  "635",  [  [  "R2",  "二等座",  "3",  "384",  "309.00",  []  ],  [  "RW",  "软卧",  "5",  "251",  "696.00",  [  "615.0",  "-",  "696.0"  ]  ],  [  "WZ",  "无座",  "9",  "0",  "309.00",  []  ]  ]  ]  ]  } |

## VerifyTrainTicket\_1\_0验证火车余票接口

此接口用于验证所选车次剩余座位情况

### 请求参数说明

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **根节点** | **<VerifyTrainTicket\_1\_0>** | | | | |
| **子节点** | **节点名称** | **说明** | **数据类型** | **长度** | **是否必填** |
| **<FromStation>** | 出发车站，例如：北京 | 字符 | 20 | 是 |
| **<ArriveStation>** | 到达车站，例如：上海 | 字符 | 20 | 是 |
| **<TravelTime>** | 出发日期，例如：2015-04-01 | 字符 | 10 | 是 |
| **<TrainCode>** | 车次 | 字符 | 10 | 是 |
| **样例数据** | <QueryTrainTicket\_1\_0>  <FromStation>北京</FromStation>  <ArriveStation>上海</ArriveStation>  <TravelTime>2016-06-16</TravelTime>  <TrainCode> G105</TrainCode>  </QueryTrainTicket\_1\_0> | | | | |

### 过滤参数说明

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **根节点** | **<Filter\_1\_0>** | | | | |
| **子节点** | **节点名称** | **说明** | **数据类型** | **长度** | **是否必填** |
| **<Compress>** | 是否返回压缩格式数据(deflate压缩格式)  N 返回原始结果(默认)  Y 返回压缩结果(推荐) | 字符 | 1 | N |
| **样例数据** | <Filter\_1\_0><Compress>Y</Compress></Filter\_1\_0> | | | | |

### 返回参数说明

|  |  |
| --- | --- |
| **根节点** | **{** |
| **子节点** | **"train\_code": "车次",**  **"from\_station": "出发站",**  **"from\_time": "出发时间(HH:mm)",**  **"arrive\_station": "到达站",**  **"arrive\_time": "到达时间(HH:mm)",**  **"start\_station": "始发站",**  **"start\_time": "始发时间(HH:mm)",**  **"end\_station": "终点站",**  **"end\_time": "终点时间(HH:mm)",**  **"cost\_time": "历时",**  **"WZ": "无座票数",**  **"YZ": "硬座票数",**  **"RZ": "软座票数",**  **"R1": "一等座票数",**  **"R2": "二等座票数",**  **"YW": "硬卧票数",**  **"RW": "软卧票数",**  **"SZ": "商务座票数",**  **"TZ": "特等座票数",**  **"GW": "高级软卧票数",**  **"return\_code": "结果代码(000:正常; 其他:异常)",**  **"message": "信息"** |
| **样例数据** | {  "train\_code": "G105",  "start\_station": "北京南",  "end\_station": "上海虹桥",  "start\_time": "",  "end\_time": "",  "from\_time": "07:36",  "arrive\_time": "13:21",  "from\_station": "北京南",  "arrive\_station": "上海虹桥",  "cost\_time": "345",  "WZ": "-",  "YZ": "-",  "RZ": "-",  "R1": "53",  "R2": "1000",  "YW": "-",  "RW": "-",  "SZ": "15",  "TZ": "-",  "GW": "-",  "return\_code": "000",  "message": ""  } |
|  |  |
|  |

## QuerySubwayStation\_1\_0查询火车途经站接口

此接口用于查询所选车次经停站的信息。

### 请求参数说明

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **根节点** | **<Query****SubwayStation\_1\_0>** | | | | |
| **子节点** | **节点名称** | **说明** | **数据类型** | **长度** | **是否必填** |
| **<****TrainCode>** | 车次 | 字符 | 10 | 是 |
| **样例数据** | <QuerySubwayStation\_1\_0>  <TrainCode>G105</TrainCode>  </QuerySubwayStation\_1\_0> | | | | |

### 过滤参数说明

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **根节点** | **<Filter\_1\_0>** | | | | |
| **子节点** | **节点名称** | **说明** | **数据类型** | **长度** | **是否必填** |
| **<Compress>** | 是否返回压缩格式数据(deflate压缩格式)  N 返回原始结果(默认)  Y 返回压缩结果(推荐) | 字符 | 1 | N |
| **样例数据** | <Filter\_1\_0><Compress>Y</Compress></Filter\_1\_0> | | | | |

### 返回参数说明

|  |  |
| --- | --- |
| **根节点** | **{** |
| **子节点** | **"return\_code": "结果代码(000:正常; 其他:异常)",**  **"message": "信息"**  **"train\_stationinfo": [**  **{**  **"arrtime": "到站时间(HH:mm)",**  **"costtime": "到站天数(当天，第二天，第三天…..以此类推)",**  **"distance": "里程数",**  **"interval": "停车时间(列车在站台停车时间,单位为分钟)",**  **"name": "站名",**  **"starttime": "发车时间(HH:mm)",**  **"stationno": "途经站序号"**  **}**  **]** |
| **样例数据** | {  "return\_code": "000",  "message": "",  "train\_stationinfo": [  {  "arrtime": "07:36",  "costtime": "当日",  "distance": "0",  "interval": "---",  "name": "北京南",  "starttime": "07:36",  "stationno": "1"  },  {  "arrtime": "07:57",  "costtime": "当日",  "distance": "60",  "interval": "2",  "name": "廊坊",  "starttime": "07:59",  "stationno": "2"  },  {  "arrtime": "08:34",  "costtime": "当日",  "distance": "210",  "interval": "2",  "name": "沧州西",  "starttime": "08:36",  "stationno": "3"  },  {  "arrtime": "09:22",  "costtime": "当日",  "distance": "406",  "interval": "2",  "name": "济南西",  "starttime": "09:24",  "stationno": "4"  },  {  "arrtime": "09:56",  "costtime": "当日",  "distance": "535",  "interval": "2",  "name": "曲阜东",  "starttime": "09:58",  "stationno": "5"  },  {  "arrtime": "11:31",  "costtime": "当日",  "distance": "964",  "interval": "9",  "name": "滁州",  "starttime": "11:40",  "stationno": "6"  },  {  "arrtime": "11:58",  "costtime": "当日",  "distance": "1023",  "interval": "2",  "name": "南京南",  "starttime": "12:00",  "stationno": "7"  },  {  "arrtime": "12:25",  "costtime": "当日",  "distance": "1120",  "interval": "2",  "name": "丹阳北",  "starttime": "12:27",  "stationno": "8"  },  {  "arrtime": "12:56",  "costtime": "当日",  "distance": "1237",  "interval": "2",  "name": "苏州北",  "starttime": "12:58",  "stationno": "9"  },  {  "arrtime": "13:21",  "costtime": "当日",  "distance": "1318",  "interval": "---",  "name": "上海虹桥",  "starttime": "13:21",  "stationno": "10"  }  ]  } |

## QueryTrainStation\_1\_0查询火车站接口

此接口用于查询全国火车站信息。

### 请求参数说明

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **根节点** | **<QueryTrainStation\_1\_0>** | | | | |
| **子节点** | **节点名称** | **说明** | **数据类型** | **长度** | **是否必填** |
| **<TimeStamp>** | 时间戳 | 字符 | 20 | 是 |
| **样例数据** | <QueryTrainStation\_1\_0>  <TimeStamp>2016-06-15T14:00:00</TimeStamp>  </QueryTrainStation\_1\_0> | | | | |

### 过滤参数说明

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **根节点** | **<Filter\_1\_0>** | | | | |
| **子节点** | **节点名称** | **说明** | **数据类型** | **长度** | **是否必填** |
| **<Compress>** | 是否返回压缩格式数据(deflate压缩格式)  N 返回原始结果(默认)  Y 返回压缩结果(推荐) | 字符 | 1 | N |
| **样例数据** | <Filter\_1\_0><Compress>Y</Compress></Filter\_1\_0> | | | | |

### 返回参数说明

|  |  |
| --- | --- |
| **根节点** | **{** |
| **子节点** | **"TrainStationData": [**  **[**  **"序号",**  **"车站名称",**  **"车站全拼",**  **"车站简拼",**  **"是否热点(0:否; 1:是)"**  **]**  **]** |
| **样例数据** | {  "TrainStationData": [  [  "1",  "北京北",  "beijingbei",  "bjb",  "0"  ],  [  "2",  "北京东",  "beijingdong",  "bjd",  "0"  ],  [  "3",  "北京",  "beijing",  "bj",  "1"  ],  [  "4",  "北京南",  "beijingnan",  "bjn",  "0"  ],  [  "5",  "北京西",  "beijingxi",  "bjx",  "0"  ],  [  "6",  "广州南",  "guangzhounan",  "gzn",  "0"  ],  [  "7",  "重庆北",  "chongqingbei",  "cqb",  "0"  ],  [  "8",  "重庆",  "chongqing",  "cq",  "1"  ],  [  "9",  "重庆南",  "chongqingnan",  "cqn",  "0"  ],  [  "10",  "广州东",  "guangzhoudong",  "gzd",  "0"  ],  [  "11",  "上海",  "shanghai",  "sh",  "1"  ],  [  "12",  "上海南",  "shanghainan",  "shn",  "0"  ],  [  "13",  "上海虹桥",  "shanghaihongqiao",  "shhq",  "0"  ]  ]  } |