iikoNET. POS API v2 HTTP wrapper

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# Описание

Приложение **iikoNet.Service.Api.Front.v2.Client.Host.exe** представляет из себя обертку над [iiko.net: API для POS-системы](https://docs.google.com/document/d/11UsjfS34D7oOTuLgYzkdEJMjuyOlmnEdA9qq5ahoseU/edit) для вызова методов iikoNet Front Api по протоколу Http. Может использоваться в случаях, когда невозможна интеграция с использованием in-proc методов (Com-интерфейс, .Net-библиотека).

Приложение может быть запущено как консоль (запуск из командной строки) или как сервис Windows (установка с помощью install.bat).

Названия методов, их параметры, назначение и сценарии использования описаны в [iiko.net: API для POS-системы](https://docs.google.com/document/d/11UsjfS34D7oOTuLgYzkdEJMjuyOlmnEdA9qq5ahoseU/edit)

В данном документе отражены только правила вызова по http-протоколу.

# Системные требования

Версия .Net Framework: 4.0

Версия Windows: XP и выше

# Особенности сериализации типов данных

Используется стандартная .Net WCF JSON сериализация. Детали описаны в [Stand-Alone JSON Serialization](http://msdn.microsoft.com/en-us/library/bb412170(v=vs.110).aspx). Отдельно стоит выделить способ сериализации дат, т.к. он несколько отличается от общепринятого:

|  |
| --- |
| [DateTime](http://msdn.microsoft.com/en-us/library/system.datetime(v=vs.110).aspx) values appear as JSON strings in the form of "/Date(700000+0500)/", where the first number (700000 in the example provided) is the number of milliseconds in the GMT time zone, regular (non-daylight savings) time since midnight, January 1, 1970. The number may be negative to represent earlier times. The part that consists of "+0500" in the example is optional and indicates that the time is of the [Local](http://msdn.microsoft.com/en-us/library/shx7s921(v=vs.110).aspx) kind - that is, should be converted to the local time zone on deserialization. If it is absent, the time is deserialized as [Utc](http://msdn.microsoft.com/en-us/library/shx7s921(v=vs.110).aspx). The actual number ("0500" in this example) and its sign (+ or -) are ignored.  When serializing [DateTime](http://msdn.microsoft.com/en-us/library/system.datetime(v=vs.110).aspx), [Local](http://msdn.microsoft.com/en-us/library/shx7s921(v=vs.110).aspx) and [Unspecified](http://msdn.microsoft.com/en-us/library/shx7s921(v=vs.110).aspx) times are written with an offset, and [Utc](http://msdn.microsoft.com/en-us/library/shx7s921(v=vs.110).aspx) is written without.  The conversion only takes place if the "/" characters are escaped (that is, the JSON looks like "\/Date(700000+0500)\/"), and for this reason WCF's JSON encoder (enabled by the [WebHttpBinding](http://msdn.microsoft.com/en-us/library/system.servicemodel.webhttpbinding(v=vs.110).aspx)) always escapes the "/" character. |

# Методы

Общее правило: все параметры элементарных типов передаются через строку запроса, все параметры сложных типов передаются через тело запроса и заключены в обрамляюший json-контейнер.

Примеры сняты с помощью программы [Fiddler](http://www.telerik.com/download/fiddler).

Json-объекты в примерах дополнительно отформатированы для повышения читабельности

(в реальном приложении это делать необязательно).

## Инициализация

Параметры инициализации, аналогичные полям класса StartupParams, задаются через конфигурационный файл приложения (**iikoNet.Service.Api.Front.v2.Client.Host.exe.config**)

|  |
| --- |
| <applicationSettings>  <iikoNet.Service.Api.Front.v2.Client.Host.Properties.Settings>  <setting name="Host" serializeAs="String">  <value>iiko.net</value>  </setting>  <setting name="Login" serializeAs="String">  <value>test</value>  </setting>  <setting name="Password" serializeAs="String">  <value>test</value>  </setting>  <setting name="SyncCallTimeout" serializeAs="String">  <value>00:00:15</value>  </setting>  <setting name="AsycCallTimeout" serializeAs="String">  <value>00:00:03</value>  </setting>  <setting name="UserCompression" serializeAs="String">  <value>True</value>  </setting>  <setting name="Locale" serializeAs="String">  <value>ru-RU</value>  </setting>  <setting name="TapeWidth" serializeAs="String">  <value>35</value>  </setting>  </iikoNet.Service.Api.Front.v2.Client.Host.Properties.Settings> |

Порт, на котором будет работать http-сервер, задается в файле **Config\serviceModel.Services.config**. По умолчанию равен **7777**.

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## Checkin

|  |  |
| --- | --- |
| Сигнатура | CheckinResult Checkin(string credential, UserSearchScope searchScope, Order order, ProductLimit[] limits) |
| Строка запроса | /checkin?credential={credential}&searchScope={searchScope} |
| Http-метод | POST |
| Пример запроса | POST http://msk-vyushkov.resto.lan:7777/iikonet/api/front/complex/checkin?credential=12345678&searchScope=PaymentToken HTTP/1.1  Content-Type: application/json; charset=utf-8  Host: msk-vyushkov.resto.lan:7777  Content-Length: 796  Expect: 100-continue  Accept-Encoding: gzip, deflate  Connection: Keep-Alive  {  "order":{  "cashierName":"Петя",  "closeTime":null,  "fiscalChequeNumber":null,  "guestCount":0,  "id":"d441b18b-f82c-44ca-bcbb-cdae3b85dd61",  "items":[  {  "amount":1,  "comment":null,  "printTime":null,  "productCategory":null,  "productCode":"111",  "productName":"Чай с лимоном",  "sum":25,  "sumAfterDiscount":25  },  {  "amount":1,  "comment":null,  "printTime":null,  "productCategory":null,  "productCode":"222",  "productName":"Пирожное",  "sum":75,  "sumAfterDiscount":75  }  ],  "number":null,  "openTime":{  "DateTime":"\/Date(-62135596800000)\/",  "OffsetMinutes":0  },  "prechequeTime":null,  "restarauntSectionName":null,  "sum":25,  "sumAfterDiscount":25,  "tableNumber":null,  "waiterName":null  },  "limits":[  {  "canBePaidByBonuses":true,  "minPrice":10,  "productCode":"111"  },  {  "canBePaidByBonuses":true,  "minPrice":0,  "productCode":"222"  }  ]  } |
| Пример ответа | HTTP/1.1 200 OK  Content-Length: 766  Content-Type: application/json; charset=utf-8  Server: Microsoft-HTTPAPI/2.0  Date: Wed, 25 Feb 2015 12:51:36 GMT  {  "chequeFooter":"Подвал чека",  "loyatyResult":{  "programResults":[  {  "name":"Маркетинговая акция TEST1",  "operations":[  {  "code":"FixedSumDiscount",  "comment":"Скидка от маркетинговой акции TEST1",  "discountSum":3.50,  "productCode":"111",  "productName":"Чай с лимоном"  }  ],  "programId":"3a7ed2ca-754a-4a24-9996-67f651f6b3a4"  }  ],  "totalBonus":0  },  "paymentLimits":[  {  "maxSum":10,  "minSum":0,  "walletCode":"bonus"  },  {  "maxSum":5,  "minSum":3,  "walletCode":"paymentCard"  }  ],  "payments":[  {  "sum":1,  "walletCode":"bonus"  },  {  "sum":1,  "walletCode":"paymentCard"  }  ],  "userData":{  "birthday":"\/Date(793716696877+0300)\/",  "fullName":"Петров Иван Васильевич",  "photoUrl":"https:\/\/iiko.net\/apple-touch-icon-precomposed.png"  }  } |

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## Pay

|  |  |
| --- | --- |
| Сигнатура | void Pay(Guid orderId, Guid transactionId, WalletPayment[] payments, AppliedDiscount[] discounts) |
| Строка запроса | /pay?orderId={orderId}&transactionId={transactionId} |
| Http-метод | POST |
| Пример запроса | POST http://msk-vyushkov.resto.lan:7777/iikonet/api/front/complex/pay?orderId=677d4849-0e6f-438b-b950-e2e6c7f680c0&transactionId=9fd7c365-ce9b-4606-baac-86bac8f073fc HTTP/1.1  Content-Type: application/json; charset=utf-8  Host: msk-vyushkov.resto.lan:7777  Content-Length: 275  Expect: 100-continue  Accept-Encoding: gzip, deflate  {  "payments":[  {  "sum":10,  "walletCode":"bonus"  },  {  "sum":86.5,  "walletCode":"paymentCard"  }  ],  "discounts":[  {  "comment":null,  "operationCode":"FixedSumDiscount",  "productCode":"111",  "productName":"Чай с лимоном",  "programId":"9fb41ecc-7aaf-4837-85a2-3aaf1e359138",  "sum":3.50  }  ]  } |
| Пример ответа | HTTP/1.1 200 OK  Content-Length: 0  Server: Microsoft-HTTPAPI/2.0  Date: Fri, 14 Nov 2014 13:06:51 GMT |

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## CancelPay

|  |  |
| --- | --- |
| Сигнатура | void CancelPay(Guid orderId, Guid transactionId) |
| Строка запроса | /cancelPay?orderId={orderId}&transactionId={transactionId} |
| Http-метод | POST |
| Пример запроса | POST http://msk-dborisov.resto.lan:7777/iikonet/api/front/complex/cancelPay?orderId=7a3fd290-430f-4ad2-8298-1fc54d73f19d&transactionId=a017d1f9-d8dc-466e-9c79-3f53f474a750 HTTP/1.1  Content-Type: application/json; charset=utf-8  Host: msk-dborisov.resto.lan:7777  Content-Length: 0  Accept-Encoding: gzip, deflate  Connection: Keep-Alive |
| Пример ответа | HTTP/1.1 200 OK  Content-Length: 0  Server: Microsoft-HTTPAPI/2.0  Date: Fri, 14 Nov 2014 13:16:54 GMT |

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## Refund

|  |  |
| --- | --- |
| Сигнатура | RefundResult Refund(Guid orderId, WalletRefund[] refunds, CancelledOrderItem[] cancelledItems) |
| Строка запроса | /refund?orderId={orderId} |
| Http-метод | POST |
| Пример запроса | POST http://msk-dborisov.resto.lan:7777/iikonet/api/front/complex/refund?orderId=4cba8738-83bb-4142-8ee6-b0901caa83f2 HTTP/1.1  Content-Type: application/json; charset=utf-8  Host: msk-dborisov.resto.lan:7777  Content-Length: 104  Expect: 100-continue  Accept-Encoding: gzip, deflate  Connection: Keep-Alive  {  "refunds":[  {  "sum":1.5,  "walletCode":"paymentCard"  }  ],  "cancelledItems":[  {  "amount":1,  "productCode":"111"  }  ]  } |
| Пример ответа | HTTP/1.1 200 OK  Content-Length: 40  Content-Type: application/json; charset=utf-8  Server: Microsoft-HTTPAPI/2.0  Date: Fri, 14 Nov 2014 13:24:19 GMT  {  "chequeFooter":"Подвал чека"  } |

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## Close

|  |  |
| --- | --- |
| Сигнатура | CloseResult Close(Order order, decimal sumForBonus) |
| Строка запроса | /close |
| Http-метод | POST |
| Пример запроса | POST http://msk-vyushkov.resto.lan:7777/iikonet/api/front/complex/close HTTP/1.1  Content-Type: application/json; charset=utf-8  Host: msk-vyushkov.resto.lan:7777  Content-Length: 681  Expect: 100-continue  Accept-Encoding: gzip, deflate  {  "order":{  "cashierName":"Петя",  "closeTime":null,  "fiscalChequeNumber":null,  "guestCount":0,  "id":"677d4849-0e6f-438b-b950-e2e6c7f680c0",  "items":[  {  "amount":1,  "comment":null,  "printTime":null,  "productCategory":null,  "productCode":"111",  "productName":"Чай с лимоном",  "sum":25,  "sumAfterDiscount":25  },  {  "amount":1,  "comment":null,  "printTime":null,  "productCategory":null,  "productCode":"222",  "productName":"Пирожное",  "sum":75,  "sumAfterDiscount":75  }  ],  "number":null,  "openTime":{  "DateTime":"\/Date(-62135596800000)\/",  "OffsetMinutes":0  },  "prechequeTime":null,  "restarauntSectionName":null,  "sum":25,  "sumAfterDiscount":25,  "tableNumber":null,  "waiterName":null  },  "sumForBonus":86.5  } |
| Пример ответа | HTTP/1.1 200 OK  Content-Length: 98  Content-Type: application/json; charset=utf-8  Server: Microsoft-HTTPAPI/2.0  Date: Fri, 14 Nov 2014 13:30:35 GMT  {  "chequeFooter":"Подвал чека",  "loyaltyResult":{  "programResults":null,  "totalBonus":86.5  }  } |

## UpdateOrder

|  |  |
| --- | --- |
| Сигнатура | CheckinResult UpdateOrder(Order order, ProductLimit[] limits) |
| Строка запроса | /update |
| Http-метод | POST |
| Пример запроса | POST http://msk-vyushkov.resto.lan:7777/iikonet/api/front/complex/update HTTP/1.1  Content-Type: application/json; charset=utf-8  Host: msk-vyushkov.resto.lan:7777  Content-Length: 796  Expect: 100-continue  Accept-Encoding: gzip, deflate  {  "order":{  "cashierName":"Петя",  "closeTime":null,  "fiscalChequeNumber":null,  "guestCount":0,  "id":"677d4849-0e6f-438b-b950-e2e6c7f680c0",  "items":[  {  "amount":1,  "comment":null,  "printTime":null,  "productCategory":null,  "productCode":"111",  "productName":"Чай с лимоном",  "sum":25,  "sumAfterDiscount":25  },  {  "amount":1,  "comment":null,  "printTime":null,  "productCategory":null,  "productCode":"222",  "productName":"Пирожное",  "sum":75,  "sumAfterDiscount":75  }  ],  "number":null,  "openTime":{  "DateTime":"\/Date(-62135596800000)\/",  "OffsetMinutes":0  },  "prechequeTime":null,  "restarauntSectionName":null,  "sum":25,  "sumAfterDiscount":25,  "tableNumber":null,  "waiterName":null  },  "limits":[  {  "canBePaidByBonuses":true,  "minPrice":10,  "productCode":"111"  },  {  "canBePaidByBonuses":true,  "minPrice":0,  "productCode":"222"  }  ]  } |
| Пример ответа | HTTP/1.1 200 OK  Content-Length: 766  Content-Type: application/json; charset=utf-8  Server: Microsoft-HTTPAPI/2.0  Date: Wed, 25 Feb 2015 13:13:40 GMT  {  "chequeFooter":"Подвал чека",  "loyatyResult":{  "programResults":[  {  "name":"Маркетинговая акция TEST1",  "operations":[  {  "code":"FixedSumDiscount",  "comment":"Скидка от маркетинговой акции TEST1",  "discountSum":3.50,  "productCode":"111",  "productName":"Чай с лимоном"  }  ],  "programId":"9fb41ecc-7aaf-4837-85a2-3aaf1e359138"  }  ],  "totalBonus":0  },  "paymentLimits":[  {  "maxSum":10,  "minSum":0,  "walletCode":"bonus"  },  {  "maxSum":5,  "minSum":3,  "walletCode":"paymentCard"  }  ],  "payments":[  {  "sum":1,  "walletCode":"bonus"  },  {  "sum":1,  "walletCode":"paymentCard"  }  ],  "userData":{  "birthday":"\/Date(793718020646+0300)\/",  "fullName":"Петров Иван Васильевич",  "photoUrl":"https:\/\/iiko.net\/apple-touch-icon-precomposed.png"  }  } |