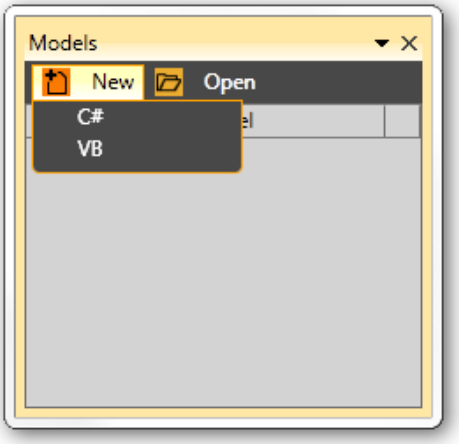
, C# Visual Basic. . , .

, , , , 1.

:

- 
  - 
    - InstrumentParamsProvider
    - InstrumentParams
    - 
    - OptionsSeries
    - Positions




1 –

, **New** , : C# Visual Basic. , , , 2.



2 –

**Save** . *.model. **Open**. , , .

, () , . :

```
double CalcPrice(InstrumentParams ip, OptionEvaluationParams oep);

InstrumentCalculatedParams CalcPriceAndGreeks(InstrumentParams ip,
OptionEvaluationParams oep);



decimal GetVola(InstrumentParams ip);
```

:

- InstrumentParamsProvider, (InstrumentParams);
- OptionsSeries, ;
- Positions, .

## InstrumentParamsProvider

(InstrumentParams).

GetInstrumentParams(Instrument instrument) . GetOptionFuturesParams(Instrument instrument) .

:

```
var optionParams = InstrumentParamsProvider.GetInstrumentParams(OptionsSeries.Calls[19000]);

var futuresParams = InstrumentParamsProvider.GetInstrumentParams(OptionsSeries.Futures);



var futuresParams = InstrumentParamsProvider.GetOptionFuturesParams(OptionsSeries.Calls[19000]);

decimal lastPrice = optionParams.LastPrice;
decimal strike = optionParams.Strike;
long bidQty = optionParams.BestBidQuantity;
```

 : "params" .

## InstrumentParams

**1 –**

| | | |
|---|---|---|
| | BaseActive | string |
| | BestBidPrice | decimal |
| | BestBidQuantity | long |
| | BestOfferPrice | decimal |
| | BestOfferQuantity | long |
| | BottomPriceLimit | decimal |
| | Change | decimal |
| | Class | string |
| | ClassCode | string |
| ( ) | CurrentValue | decimal |

| | | |
|---|---|---|
| | DecimalPlaces | uint |
| | ExpirationDate | DateTime |
| | FullCode | string |
| | Go | decimal |
| | LastChangeTime | DateTime |
| | LastPrice | decimal |
| | LotSize | long |
| (, ) | OptionType | OptionType |
| | PremiumStyle | OptionPremiumStyle |
| | PriceStep | decimal |
| | PriceStepPrecision | decimal |
| | PriceStepValue | decimal |
| | Settlement | decimal |
| | SettlingDate | DateTime |
| | Status | string |
| | Strike | decimal |
| | TheorPrice | decimal |
| | TopPriceLimit | decimal |
| | Type | InstrumentType |
| | Volty | decimal |
| | PrevClosePrice | decimal |

**2 –**

| | | |
|---|---|---|
| OptionType | C | Call |
| | P | Put |
| OptionPremiumStyle | Margin | Margin |
| | Upfront | Upfront |
| InstrumentType | F | Futures |
| | O | Option |

## OptionsSeries

. (. 3).

**3 –**

| | | |
|---|---|---|
| | Futures | Instrument |
| | Expiration | DateTime |
| | Instruments | List<Instrument> |
| | Calls | Dictionary<decimal, Instrument> |

| | | |
|---|---|---|
| | Puts | Dictionary<decimal, Instrument> |

OptionsSeries., :

- 

```
string classCode = OptionSeries.Futures.Code;
```

- 

```
DateTime expDate = OptionSeries.Expiration;
```

- 

```
Dictionary<decimal, Instrument> puts = OptionSeries.Puts;
```

## Positions

.

:

```
int pos = Positions["_"]["_"]["_"]["_"];


int pos = Positions.GetPosition("_", "_", "_", "_");
```

"_" - .

:

```
int pos = Positions["_"]["_"]["_"].Calls(, "_");


int pos = Positions.GetPosition("_", "_", "_", "Call", , "_");
```

:

```
int pos = Positions["_"]["_"]["_"].Puts(, "_");


int pos = Positions.GetPosition("_", "_", "_", "Put", , "_");
```

:

```
int pos = Positions["_"]["_"]["_"]["_"];


int pos = Positions.GetPosition("_", "_", "_", "_");
```

> ⚠ "RTS".
> "RIU1".
> "RI185000BG1".
> "", "201109".
> .

, RTS 185000- 2011 , :

```
int pos = positions["acc"]["RTS"]["strategy1"].Calls(185000, "201107");


int pos = Positions.GetPosition("acc", "RTS", "strategy1", "Call", 185000, "201107");


int pos = Positions["acc"]["RTS"]["strategy1"]["RI185000BG1"];
```