

# Account SDK

- **AccountList GetAccountList() throw (...)**

This function returns list of accounts associated with a user.

- **CAccountBalanceResponse GetAccountBalance(CString strAccountId) throw (...)**

This API is returning the current account balance details for a specified account.

| Type    | Name         | Default | Description                                    |
|---------|--------------|---------|--|
| CString | strAccountId |         | Account number which you want to know balance. |

- **CAccountPositionsResponse GetAccountPositions (CAccountPositionsRequest accountPositionsRequest) throw (...)**

This API will return positions held in the account if it is successful.

```
class CAccountPositionsRequest
{
private:
    CString m_AccountId;
    CString m_Count;
    CString m_Marker;
    CString m_Symbol;
    CString m_TypeCode;
    CString m_CallPut;
    double m_StrikePrice;
    CString m_ExpYear;
    CString m_ExpMonth;
    CString m_ExpDay;
};
```

| Type    | Name         | Default | Description  |
|---------|--------------|---------|--|
| CString | strAccountId |         | Account number which you want to know balance.   |
| CString | m_Count      | 25      | Returns the number of positions in the account. This is optional parameter.  |
| CString | m_Marker     |         | Additional positions in the account if there are more than 25 positions. This is optional parameter.   |
| CString | m_Symbol     |         | The market trading symbol for the stock being bought or sold.  |
| CString | m_TypeCode   |         | Type of derivative that the position reflects. There are two options for the derivative.<br>EQ - Equity.<br>OPTN - Option<br>INDX - Index<br>MF -Mutual Fund<br>FI - Fixed Income (bond) |

|         |               |  |  |
|---------|---------------|--|--|
| CString | m_CallPut     |  | Option parameter that allows the owner the right to either buy or sell an option.<br>Options are:<br>CALL and PUT<br>Note: For Type code OPTN, this is a required field. |
| double  | m_StrikePrice |  | The price at which an option can be exercised. Note: For Type code OPTN, this is a required field.   |
| CString | m_ExpYear     |  | The year the option will expire, as specified in the option contract. For Type code OPTN, this is a required field.  |
| CString | m_ExpMonth    |  | The month the option will expire, as specified in the option contract. For Type code OPTN, this is a required field.   |
| CString | m_ExpDay      |  | The day the option will expire, as specified in the option contract. For Type code OPTN, this is a required field.   |

- **AlertList GetAlerts() throw (...)**

This function is returning a list of account and trading alerts.

- **CAlertDetailsResponse GetAlertDetails(int nAlertID) throw (...)**

This function is returning the details of a specific alert.

| Type | Name     | Default | Description      |
|------|----------|---------|------------------|
| int  | nAlertID |         | Alert id number. |

- **CDeleteAlertResponse DeleteAlert(int nAlertID)throw (...)**

This function delete alter from account.

| Type | Name     | Default | Description      |
|------|----------|---------|------------------|
| int  | nAlertID |         | Alert id number. |

## Code snippets

How to call GetAccountPositions function?

```
CClientDetails clientDetails;
```

```
clientDetails.SetConsumerKey("b011789d5cd732734bc69dedff8e263b");
clientDetails.SetConsumerSecret("98b373d1e5e9c411ef52d35419bb01bb");
clientDetails.SetToken("uiiGNI0e5EZn93dbZq0a9mGyp7QLsN%2BisYnpfrR8Vr4%3D");
```

```

clientDetails.SetTokenSecret("ndFgwZXFmSu3f81kr1eYfRUerZYiC%2FJxevp3n2R6MvA%3D");

CAccountSDK ObjAccountSDK(clientDetails);

CAccountPositionsRequest accountPositionsRequestObj;

accountPositionsRequestObj.SetAccountId("12345676");
accountPositionsRequestObj.SetCount(24);

CAccountPositionsResponse accountPositions;
accountPositions = ObjAccountSDK.GetAccountPositions( accountPositionsRequestObj );

```

## Market SDK

- **COptionChainResponse GetOptionChains(COptionChainRequest OptionChainRequestObj)throw (...)**

Function will return a list of option chains associated with a specific underlie if it is successful.

```

class COptionChainRequest
{
    CString m_ExpirationDay;
    CString m_ExpirationMonth;
    CString m_ExpirationYear;
    CString m_ChainType;
    CString m_SkipAdjusted;
    CString m_Underlier;
};

```

| Type    | Name              | Default | Description  |
|---------|-------------------|---------|--|
| CString | m_ExpirationDay   |         | The day the option will expire, as Specified in the option contract.   |
| CString | m_ExpirationMonth |         | The month the option will expire, as Specified in the option contract.   |
| CString | m_ExpirationYear  |         | The year the option will expire, as Specified in the option contract.  |
| CString | m_ChainType       | CALL    | The type of option chain. Options are: <ul style="list-style-type: none"> <li>• CALL</li> <li>• PUT</li> <li>• CALLPUT</li> </ul>  |
| CString | m_SkipAdjusted    | TRUE    | Value that either shows or does not show adjusted options. Adjusted options are defined as options that have undergone a change and the option contract has been amended to modify this change. Options are: <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul> |
| CString | m_Underlier       |         | The market trading symbol for the stock being bought or sold.  |

- **COptionExpireDateResponse GetOptionExpireDate(COptionExpireDateRequestWrappe OptionExpireDateRequestObj) throw (...)**

Function will return a return list of expiration dates for options.

```
class COptionExpireDateRequestWrappe
{
    CString m_symbol;
```

| Type    | Name     | Default | Description  |
|---------|----------|---------|--|
| CString | m_symbol |         | The symbol of the underlying security or index for the option. |

- **CProductLookupResponse GetProductLookup ( CProductLookupRequest ProductLookupRequestObj) throw (...)**

Function wills returns matching stock information for a specified query string

```
class CProductLookupRequest
{
    CString m_Company;
    CString m_Type;
};
```

| Type    | Name      | Default | Description  |
|---------|-----------|---------|--|
| CString | m_Company |         | The name of the company.   |
| CString | m_type    |         | The type of security. Options are: <ul style="list-style-type: none"> <li>• EQ - Equity</li> <li>• MF - Mutual Fund</li> </ul> |

- **CQuoteResponse GetQuote(CQuoteReqeust QuoteReqeustObj) throw (...)**

Function wills return the latest market information for a symbol

```
class CQuoteReqeust
{
    StringList m_SymbolList;
    CString m_DetailFlag ;
};
```

| Type       | Name         | Default | Description  |
|------------|--------------|---------|--|
| StringList | m_SymbolList |         | The market trading symbol for the stock being bought or sold. This is a list of symbols which can be any of the following: <ul style="list-style-type: none"> <li>• EQ - Equity</li> <li>• OPTN- Option</li> </ul> Note: The OPTN symbol has the following format (with six components separated by a colon):<br>underlier:year:month:day:<br>optiontype:strikePrice |
| CString    | m_DetailFlag |         | Determines the market fields returned from a quote request. Fields   |

|  |  |  |   |
|--|--|--|---|
|  |  |  | returned<br>from each option are as follows: <ul style="list-style-type: none"> <li>• ALL</li> <li>• FUNDAMENTAL</li> <li>• INTRADAY</li> <li>• OPTIONS</li> <li>• WEEK_52</li> </ul> |
|--|--|--|---|

## Code snippets

How to call GetOptionChanin function?

```
CClientDetails clientDetails;
```

```
clientDetails.SetConsumerKey("b011789d5cd732734bc69dedff8e263b");
clientDetails.SetConsumerSecret("98b373d1e5e9c411ef52d35419bb01bb");
clientDetails.SetToken("uiiGNI0e5EZn93dbZq0a9mGyp7QLsN%2BisYnpfrR8Vr4%3D");
clientDetails.SetTokenSecret("ndFgwZXFmSu3f81krleYfRUerZViC%2FJxevp3n2R6MvA%3D");
```

```
CMarketSDK ObjMarketSDK(clientDetails);
```

```
COptionChainRequest OptionChainRequest;
COptionChainResponse OptionChainResponse;
```

```
OptionChainRequest.SetUnderlier("GOOG");
OptionChainRequest.SetChainType(CALL);
OptionChainRequest.SetExpirationDay(17);
OptionChainRequest.SetExpirationMonth(9);
OptionChainRequest.SetExpirationYear(2011) ;
```

```
OptionChainResponse = ObjMarketSDK.GetOptionChains(OptionChainRequest);
```

## Order SDK

- **COrderListResponse GetOrderList(COrderListRequest OrderListRequestObj)**

Function wills return a list of open orders or orders updated today.

```
class COrderListRequest
{
    CString m_AccountId;
    CString m_Marker;
    CString m_Count;
};
```

| Type    | Name        | Default | Description  |
|---------|-------------|---------|--|
| CString | m_AccountId |         | The 8-digit account number assigned to the user.   |
| CString | m_Marker    |         | Parameter that designates additional orders in the account if there are more than the requested number of orders.                    |
| CString | m_Count     |         | Parameter that returns the number of list of open orders or orders updated today. If this is not specified, the default value is 25. |

- **CEquityOrderResponse GetPreviewEquityOrder( CEquityOrderRequest EquityOrderRequestObj) throw (...)**

Preview an equity order function to check for errors and view the estimated commission and total cost or proceeds.

```
class CRequestBase
{
    CString      m_AccountId;
    CString      m_ClientOrderId;
    double        m_LimitPrice;
    long long     m_PreviewId;
    double        m_StopPrice;
};

class CBasicOrderRequest : public CRequestBase
{
    CString      m_AllOrNone;
    long long     m_Quantity;
    CString      m_ReserveOrder;
    long long     m_ReserveQuantity;
};

class CEquityOrderRequest : public CBasicOrderRequest
{
    CString      m_symbol;
    CString      m_orderAction;
    CString      m_priceType;
    CString      m_routingDestination;
    CString      m_marketSession;
    CString      m_orderTerm;
};
```

| Type      | Name            | Default | Description   |
|-----------|-----------------|---------|---|
| CString   | m_AccountId     |         | The 8-digit account number assigned to the user.  |
| CString   | m_ClientOrderId |         | String value assigned to the order by the client. This must be a unique value that is 20 characters or less.  |
| double    | m_LimitPrice    |         | The price at which to buy a share at or below a certain price, or sell the stock when it reaches a specified price.<br>Note: required if priceType is LIMIT or STOP_LIMIT |
| long long | m_PreviewId     |         | Not required.   |
| double    | m_StopPrice     |         | The price at which a share is to be bought or sold if specified in a limit order.<br>Note: required if priceType is STOP or STOP_LIMIT                                    |

|           |                      |  |   |
|-----------|----------------------|--|---|
| CString   | m_AllOrNone          |  | For all account types, this designates that all shares must be executed at once. Options are: <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul> Note: This is case insensitive.   |
| long long | m_Quantity           |  | The number of shares (stock) specified in the equity order to be bought or sold.  |
| CString   | m_ReserveOrder       |  | Displays only a certain number of shares (reserve quantity) in the market, even though the order is actually much larger. Options are: <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul> Note: This is case insensitive |
| long long | m_ReserveQuantity    |  | The number of shares displayed for a reserve order.<br>Note: reserveQuantity is required if reserveOrder is TRUE.   |
|           |                      |  |   |
| CString   | m_symbol             |  | The market trading symbol for the share being bought or sold.   |
| CString   | m_orderAction        |  | User-specified action that instructs the broker what action to perform. Options are: <ul style="list-style-type: none"> <li>• BUY</li> <li>• SELL</li> <li>• BUY_TO_COVER</li> <li>• SELL_SHORT</li> </ul>                                      |
| CString   | m_priceType          |  | The type of pricing specified in the equity order. Options are: <ul style="list-style-type: none"> <li>• MARKET</li> <li>• LIMIT</li> <li>• STOP</li> <li>• STOP_LIMIT</li> <li>• MARKET_ON_CLOSE</li> </ul>                                    |
| CString   | m_routingDestination |  | The exchange where a user wants to send orders to be executed. Exchanges that can be selected are: <ul style="list-style-type: none"> <li>• AUTO</li> <li>• ARCA</li> <li>• NSDQ</li> <li>• NYSE</li> </ul>                                     |
| CString   | m_marketSession      |  | Session when the equity order will be place. There are two options for this parameter: <ul style="list-style-type: none"> <li>• REGULAR</li> <li>• EXTENDED</li> </ul>  |
| CString   | m_orderTerm          |  | The length of time an equity order is enforced. Options are: <ul style="list-style-type: none"> <li>• GOOD_UNTIL_CANCEL</li> </ul>  |

|  |  |  |  |
|--|--|--|--|
|  |  |  | <ul style="list-style-type: none"> <li>• GOOD_FOR_DAY</li> <li>• IMMEDIATE_OR_CANCEL(Only for Limit Orders)</li> <li>• FILL_OR_KILL (Only for Limit Orders)</li> </ul> |
|--|--|--|--|

- **CEquityOrderResponse GetPlaceEquityorder (CEquityOrderRequest EquityOrderRequestObj) throw (...)**

Function submits an equity order request.

```

class CRequestBase
{
    CString      m_AccountId;
    CString      m_ClientOrderId;
    double       m_LimitPrice;
    long long    m_PreviewId;
    double       m_StopPrice;
};

class CBasicOrderRequest : public CRequestBase
{
    CString      m_AllOrNone;
    long long    m_Quantity;
    CString      m_ReserveOrder;
    long long    m_ReserveQuantity;
};

class CEquityOrderRequest : public CBasicOrderRequest
{
    CString      m_symbol;
    CString      m_orderAction;
    CString      m_priceType;
    CString      m_routingDestination;
    CString      m_marketSession;
    CString      m_orderTerm;
};

```

| Type    | Name            | Default | Description   |
|---------|-----------------|---------|---|
| CString | m_AccountId     |         | The 8-digit account number assigned to the user.  |
| CString | m_ClientOrderId |         | String value assigned to the order by the client. This must be a unique value that is 20 characters or less.  |
| double  | m_LimitPrice    |         | The price at which to buy a share at or below a certain price, or sell the stock when it reaches a specified price.<br>Note: required if priceType is |



|           |                      |  |  |
|-----------|----------------------|--|--|
|           |                      |  | LIMIT or STOP_LIMIT  |
| long long | m_PreviewId          |  | Numeric value associated with an order that allows users to ensure the same parameters for the preview order are input for the actual order  |
| double    | m_StopPrice          |  | The price at which a share is to be bought or sold if specified in a limit order.<br>Note: required if priceType is STOP or STOP_LIMIT   |
| CString   | m_AllOrNone          |  | For all account types, this designates that all shares must be executed at once. Options are: <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul> Note: This is case insensitive.  |
| long long | m_Quantity           |  | The number of shares (stock) specified in the equity order to be bought or sold.   |
| CString   | m_ReserveOrder       |  | Displays only a certain number of shares (reserve quantity) in the market, even though the order is actually much larger.<br>Options are: <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul> Note: This is case insensitive |
| long long | m_ReserveQuantity    |  | The number of shares displayed for a reserve order.<br>Note: reserveQuantity is required if reserveOrder is TRUE.  |
| CString   | m_symbol             |  | The market trading symbol for the share being bought or sold.  |
| CString   | m_orderAction        |  | User-specified action that instructs the broker what action to perform. Options are: <ul style="list-style-type: none"> <li>• BUY</li> <li>• SELL</li> <li>• BUY_TO_COVER</li> <li>• SELL_SHORT</li> </ul>   |
| CString   | m_priceType          |  | The type of pricing specified in the equity order. Options are: <ul style="list-style-type: none"> <li>• MARKET</li> <li>• LIMIT</li> <li>• STOP</li> <li>• STOP_LIMIT</li> <li>• MARKET_ON_CLOSE</li> </ul>                                       |
| CString   | m_routingDestination |  | The exchange where a user wants to send orders to be executed.<br>Exchanges that can be selected are: <ul style="list-style-type: none"> <li>• AUTO</li> </ul>   |

|         |                 |  |  |
|---------|-----------------|--|--|
|         |                 |  | <ul style="list-style-type: none"> <li>• ARCA</li> <li>• NSDQ</li> <li>• NYSE</li> </ul>   |
| CString | m_marketSession |  | Session when the equity order will be place. There are two options for this parameter: <ul style="list-style-type: none"> <li>• REGULAR</li> <li>• EXTENDED</li> </ul>   |
| CString | m_orderTerm     |  | The length of time an equity order is enforced. Options are: <ul style="list-style-type: none"> <li>• GOOD_UNTIL_CANCEL</li> <li>• GOOD_FOR_DAY</li> <li>• IMMEDIATE_OR_CANCEL(Only for Limit Orders)</li> <li>• FILL_OR_KILL (Only for Limit Orders)</li> </ul> |

- **CChangeEquityOrderResponse GetPreviewChangeEquityOrder(CChangeEquityOrderRequest ChangeEquityOrderRequestObj) throw (...)**

Function is changed Preview equity order.

```

class CChangeOrderBase
{
    CString          m_AccountId;
    long long        m_OrderNum;
    CString          m_ClientOrderId;
    double           m_LimitPrice;
    long long        m_PreviewId;
    double           m_StopPrice;
    CString          m_AllOrNone;
    CString          m_Quantity;
    CString          m_ReserveOrder;
    long long        m_ReserveQuantity;
};

class CChangeEquityOrderRequest : public CChangeOrderBase
{
    CString          m_PriceType;
    CString          m_OrderTerm;
};

```

| Type      | Name            | Default | Description   |
|-----------|-----------------|---------|---|
| CString   | m_AccountId     |         | The 8-digit account number assigned to the user.                  |
| long long | m_OrderNum      |         | Number assigned to the user for a request.                        |
| CString   | m_ClientOrderId |         | Not required.   |
| double    | m_LimitPrice    |         | The price at which to buy a share at or below a certain price, or |

|           |                   |  |  |
|-----------|-------------------|--|--|
|           |                   |  | sell the stock when it reaches a specified price.<br>Note: required if priceType is LIMIT or STOP_LIMIT  |
| long long | m_PreviewId       |  | Not required.  |
| double    | m_StopPrice       |  | The price at which a share is to be bought or sold if specified in a limit order.<br>Note: required if priceType is STOP or STOP_LIMIT   |
| CString   | m_AllOrNone       |  | For all account types, this designates that all shares must be executed at once. Options are: <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul> Note: This is case insensitive.  |
| CString   | m_Quantity        |  | The number of shares (stock) specified in the equity order to be bought or sold.   |
| CString   | m_ReserveOrder    |  | Displays only a certain number of shares (reserve quantity) in the market, even though the order is actually much larger.<br>Options are: <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul> Note: This is case insensitive   |
| long long | m_ReserveQuantity |  | The number of shares displayed for a reserve order.<br>Note: reserveQuantity is required if reserveOrder is true   |
| CString   | m_PriceType       |  | The price type specified in the order. Types that can be displayed are: <ul style="list-style-type: none"> <li>• MARKET</li> <li>• LIMIT</li> <li>• STOP</li> <li>• STOP_LIMIT</li> <li>• MARKET_ON_CLOSE</li> </ul>   |
| CString   | m_OrderTerm       |  | The length of time an equity order is enforced. Options are: <ul style="list-style-type: none"> <li>• GOOD_UNTIL_CANCEL</li> <li>• GOOD_FOR_DAY</li> <li>• IMMEDIATE_OR_CANCEL</li> </ul> (Only for Limit Orders) <ul style="list-style-type: none"> <li>• FILL_OR_KILL (Only for Limit Orders)</li> </ul> |

- **CChangeEquityOrderResponse GetPlaceChangeEquityOrder (CChangeEquityOrderRequest ChangeEquityOrderRequestObj) throw (...)**

Function executes a change equity order request.

```

class CChangeOrderBase
{
    CString          m_AccountId;
    long long        m_OrderNum;
    CString          m_ClientOrderId;
    double           m_LimitPrice;
    long long        m_PreviewId;
    double           m_StopPrice;
    CString          m_AllOrNone;
    CString          m_Quantity;
    CString          m_ReserveOrder;
    long long        m_ReserveQuantity;
};

class CChangeEquityOrderRequest : public CChangeOrderBase
{
    CString          m_PriceType;
    CString          m_OrderTerm;
};

```

| Type      | Name            | Default | Description   |
|-----------|-----------------|---------|---|
| CString   | m_AccountId     |         | The 8-digit account number assigned to the user.  |
| long long | m_OrderNum      |         | Number assigned to the user for a request.  |
| CString   | m_ClientOrderId |         | Not required.   |
| double    | m_LimitPrice    |         | The price at which to buy a share at or below a certain price, or sell the stock when it reaches a specified price.<br>Note: required if priceType is LIMIT or STOP_LIMIT                               |
| long long | m_PreviewId     |         | Not required.   |
| double    | m_StopPrice     |         | The price at which a share is to be bought or sold if specified in a limit order.<br>Note: required if priceType is STOP or STOP_LIMIT  |
| CString   | m_AllOrNone     |         | For all account types, this designates that all shares must be executed at once. Options are: <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul> Note: This is case insensitive. |
| CString   | m_Quantity      |         | The number of shares (stock) specified in the equity order to be bought or sold.  |
| CString   | m_ReserveOrder  |         | Displays only a certain number of shares (reserve quantity) in the market, even though the order is actually much larger.<br>Options are:   |

|           |                   |  |   |
|-----------|-------------------|--|---|
|           |                   |  | <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul> Note: This is case insensitive  |
| long long | m_ReserveQuantity |  | The number of shares displayed for a reserve order.<br>Note: reserveQuantity is required if reserveOrder is true  |
| CString   | m_PriceType       |  | The price type specified in the order. Types that can be displayed are: <ul style="list-style-type: none"> <li>• MARKET</li> <li>• LIMIT</li> <li>• STOP</li> <li>• STOP_LIMIT</li> <li>• MARKET_ON_CLOSE</li> </ul>  |
| CString   | m_OrderTerm       |  | The length of time an equity order is enforced. Options are: <ul style="list-style-type: none"> <li>• GOOD_UNTIL_CANCEL</li> <li>• GOOD_FOR_DAY</li> <li>• IMMEDIATE_OR_CANCEL (Only for Limit Orders)</li> <li>• FILL_OR_KILL (Only for Limit Orders)</li> </ul> |

- **COptionOrderResponse GetPreviewOptionOrder( COptionOrderRequest OptionOrderRequestObj) throw (...)**

Function previews an option order.

```

class CRequestBase
{
    CString      m_AccountId;
    CString      m_ClientOrderId;
    double       m_LimitPrice;
    long long    m_PreviewId;
    double       m_StopPrice;
};

class CBasicOrderRequest : public CRequestBase
{
    CString      m_AllOrNone;
    long long    m_Quantity;
    CString      m_ReserveOrder;
    long long    m_ReserveQuantity;
};

class COptionSymbol
{
    CString      m_Symbol;

```

```

        CString          m_CallOrPut;
        double           m_StrikePrice;
        long long        m_ExpirationYear;
        long long        m_ExpirationMonth;
        long long        m_ExpirationDay;
};

class COptionOrderRequest : public CBasicOrderRequest
{
        double           m_StopLimitPrice;
        COptionSymbol     m_SymbolInfo;
        CString          m_OrderAction;
        CString          m_PriceType;
        CString          m_RoutingDestination;
        CString          m_OrderTerm;
};

```

| Type      | Name              | Default | Description   |
|-----------|-------------------|---------|---|
| CString   | m_AccountId       |         | The 8-digit account number assigned to the user.  |
| CString   | m_ClientOrderId   |         | Not required.   |
| double    | m_LimitPrice      |         | The price at which to buy a share at or below a certain price, or sell the stock when it reaches a specified price.<br>Note: This value exists in response for LIMIT orders.  |
| long long | m_PreviewId       |         | Not Required.   |
| double    | m_StopPrice       |         | The price at which a share is to be bought or sold if specified in a limit order.<br>Note: This value exists in response for STOP orders.   |
|           |                   |         |   |
| CString   | m_AllOrNone       |         | For all account types, this designates that all shares must be executed at once. Options are: <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul> Note: This is case insensitive                          |
| long long | m_Quantity        |         | The number of contracts specified in the option order to be bought or sold.   |
| CString   | m_ReserveOrder    |         | Displays only a certain number of contracts in the market, even though the order is actually much larger. Options are: <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul> Note: This is case insensitive |
| long long | m_ReserveQuantity |         | The number of shares displayed for a reserve order.   |

|           |                      |  |   |
|-----------|----------------------|--|---|
|           |                      |  | Note: reserveQuantity is required if reserveOrder is true   |
| double    | m_StopLimitPrice     |  | The price for the stop and limit sides of the order.<br>Note: This value exists in response for STOP_LIMIT orders.  |
| CString   | m_Symbol             |  | The market trading symbol for the option underlier.   |
| CString   | m_CallOrPut          |  | Value that allows the owner of an option the right to either buy or sell an option. Options are: <ul style="list-style-type: none"> <li>• CALL</li> <li>• PUT</li> </ul>  |
| double    | m_StrikePrice        |  | The price at which an option is exercised.  |
| long long | m_ExpirationYear     |  | The year the option will expire, as specified in the option contract.   |
| long long | m_ExpirationMonth    |  | The month the option will expire, as specified in the option contract.  |
| long long | m_ExpirationDay      |  | The day the option will expire, as specified in the option contract.  |
| CString   | m_OrderAction        |  | User-specified action that instructs the broker what action to perform. Options are: <ul style="list-style-type: none"> <li>• BUY_OPEN</li> <li>• SELL_OPEN</li> <li>• BUY_CLOSE</li> <li>• SELL_CLOSE</li> </ul>   |
| CString   | m_PriceType          |  | The type of pricing specified in the equity order. Options are: <ul style="list-style-type: none"> <li>• MARKET</li> <li>• STOP</li> <li>• LIMIT</li> <li>• STOP_LIMIT</li> </ul>   |
| CString   | m_RoutingDestination |  | The exchange where a user wants to send orders to be executed. Exchanges that can be selected are: <ul style="list-style-type: none"> <li>• AUTO</li> <li>• AMEX</li> <li>• BOX</li> <li>• CBOE</li> <li>• ISE</li> <li>• NOM</li> <li>• NYSE</li> <li>• PHX</li> </ul> |
| CString   | m_OrderTerm          |  | The length of time an option order is enforced. Options are: <ul style="list-style-type: none"> <li>• GOOD_UNTIL_CANCEL</li> </ul>  |

|  |  |  |   |
|--|--|--|---|
|  |  |  | <ul style="list-style-type: none"> <li>• GOOD_FOR_DAY</li> <li>• IMMEDIATE_OR_CANCEL (Only for Limit Orders)</li> <li>• FILL_OR_KILL (Only for Limit Orders)</li> </ul> |
|--|--|--|---|

- **COptionOrderResponse GetPlaceOptionOrder( COptionOrderRequest OptionOrderRequestObj) throw (...)**

Function submits an option order request.

```
class CRequestBase
```

```
{
    CString      m_AccountId;
    CString      m_ClientOrderId;
    double       m_LimitPrice;
    long long    m_PreviewId;
    double       m_StopPrice;
};
```

```
class CBasicOrderRequest : public CRequestBase
```

```
{
    CString      m_AllOrNone;
    long long    m_Quantity;
    CString      m_ReserveOrder;
    long long    m_ReserveQuantity;
};
```

```
class COptionSymbol
```

```
{
    CString      m_Symbol;
    CString      m_CallOrPut;
    double       m_StrikePrice;
    long long    m_ExpirationYear;
    long long    m_ExpirationMonth;
    long long    m_ExpirationDay;
};
```

```
class COptionOrderRequest : public CBasicOrderRequest
```

```
{
    double       m_StopLimitPrice;
    COptionSymbol m_SymbolInfo;
    CString      m_OrderAction;
    CString      m_PriceType;
    CString      m_RoutingDestination;
    CString      m_OrderTerm;
};
```



| Type      | Name              | Default | Description   |
|-----------|-------------------|---------|---|
| CString   | m_AccountId       |         | The 8-digit account number assigned to the user.  |
| CString   | m_ClientOrderId   |         | String value assigned to the order by the client.<br>This must be a unique value that is 20 characters or less.   |
| double    | m_LimitPrice      |         | The price at which to buy a share at or below a certain price, or sell the stock when it reaches a specified price.<br>Note: This value exists in response for LIMIT orders.  |
| long long | m_PreviewId       |         | When using PreviewOptionOrder to obtain information on cost, commission, and other data, the preview ID is provided.  |
| double    | m_StopPrice       |         | The price at which a share is to be bought or sold if specified in a limit order.<br>Note: This value exists in response for STOP orders.   |
|           |                   |         |   |
| CString   | m_AllOrNone       |         | For all account types, this designates that all shares must be executed at once. Options are: <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul> Note: This is case insensitive                          |
| long long | m_Quantity        |         | The number of contracts specified in the option order to be bought or sold.   |
| CString   | m_ReserveOrder    |         | Displays only a certain number of contracts in the market, even though the order is actually much larger. Options are: <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul> Note: This is case insensitive |
| long long | m_ReserveQuantity |         | The number of shares displayed for a reserve order.<br>Note: reserveQuantity is required if reserveOrder is true  |
|           |                   |         |   |
| double    | m_StopLimitPrice  |         | The price for the stop and limit sides of the order.<br>Note: This value exists in response for STOP_LIMIT orders.  |
| CString   | m_Symbol          |         | The market trading symbol for the option underlier.   |
| CString   | m_CallOrPut       |         | Value that allows the owner of an option the right to either buy or sell an option. Options are:  |

|           |                      |  |   |
|-----------|----------------------|--|---|
|           |                      |  | <ul style="list-style-type: none"> <li>• CALL</li> <li>• PUT</li> </ul>   |
| double    | m_StrikePrice        |  | The price at which an option is exercised.  |
| long long | m_ExpirationYear     |  | The year the option will expire, as specified in the option contract.   |
| long long | m_ExpirationMonth    |  | The month the option will expire, as specified in the option contract.  |
| long long | m_ExpirationDay      |  | The day the option will expire, as specified in the option contract.  |
| CString   | m_OrderAction        |  | User-specified action that instructs the broker what action to perform. Options are: <ul style="list-style-type: none"> <li>• BUY_OPEN</li> <li>• SELL_OPEN</li> <li>• BUY_CLOSE</li> <li>• SELL_CLOSE</li> </ul>   |
| CString   | m_PriceType          |  | The type of pricing specified in the equity order. Options are: <ul style="list-style-type: none"> <li>• MARKET</li> <li>• STOP</li> <li>• LIMIT</li> <li>• STOP_LIMIT</li> </ul>   |
| CString   | m_RoutingDestination |  | The exchange where a user wants to send orders to be executed. Exchanges that can be selected are: <ul style="list-style-type: none"> <li>• AUTO</li> <li>• AMEX</li> <li>• BOX</li> <li>• CBOE</li> <li>• ISE</li> <li>• NOM</li> <li>• NYSE</li> <li>• PHX</li> </ul> |
| CString   | m_OrderTerm          |  | The length of time an option order is enforced. Options are: <ul style="list-style-type: none"> <li>• GOOD_UNTIL_CANCEL</li> <li>• GOOD_FOR_DAY</li> <li>• IMMEDIATE_OR_CANCEL (Only for Limit Orders)</li> <li>• FILL_OR_KILL (Only for Limit Orders)</li> </ul>       |

- `CChangeOptionOrderResponse GetPreviewChangeOptionOrder(CChangeOptionOrderRequest ChangeOptionOrderRequestObj) throw (...)`

Function changes preview option order request.

```
class CChangeOrderBase
{
    CString      m_AccountId;
    long long    m_OrderNum;
    CString      m_ClientOrderId;
    double       m_LimitPrice;
    long long    m_PreviewId;
    double       m_StopPrice;
    CString      m_AllOrNone;
    CString      m_Quantity;
    CString      m_ReserveOrder;
    long long    m_ReserveQuantity;
};

class CChangeOptionOrderRequest : public CChangeOrderBase
{
    double m_StopLimitPrice;
    CString m_PriceType;
    CString m_OrderTerm;
};
```

| Type      | Name            | Default | Description  |
|-----------|-----------------|---------|--|
| CString   | m_AccountId     |         | The 8-digit account number assigned to the user.   |
| long long | m_OrderNum      |         | Number assigned to the user for a request.   |
| CString   | m_ClientOrderId |         | String value assigned to the order by the client. This must be a unique value that is 20 characters or less.   |
| double    | m_LimitPrice    |         | The price at which to buy a share at or below a certain price, or sell the stock when it reaches a specified price.<br>Note: required if priceType is LIMIT          |
| long long | m_PreviewId     |         |  |
| double    | m_StopPrice     |         | The price at which a contract is to be bought or sold if specified in a limit order.<br>Note: required if priceType is STOP  |
| CString   | m_AllOrNone     |         | For all account types, this designates that all shares must be executed at once. Options are: <ul style="list-style-type: none"><li>• TRUE</li><li>• FALSE</li></ul> |
| CString   | m_Quantity      |         | The number of shares (stock) specified in the equity order to be bought or sold.   |
| CString   | m_ReserveOrder  |         | Displays only a certain number of shares (reserve quantity) in the   |

|           |                   |  |   |
|-----------|-------------------|--|---|
|           |                   |  | market, even though the order is actually much larger. Options are: <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul> Note: This is case insensitive.   |
| long long | m_ReserveQuantity |  | The number of shares displayed for a reserve order.<br>Note: reserveQuantity is required if reserveOrder is True  |
| double    | m_StopLimitPrice  |  | The price for the stop and limit sides of the order.<br>Note: required if priceType is STOP_LIMIT.  |
| CString   | m_PriceType       |  | The type of pricing specified in the option order. Options are: <ul style="list-style-type: none"> <li>• MARKET</li> <li>• STOP</li> <li>• LIMIT</li> <li>• STOP_LIMIT</li> </ul>   |
| CString   | m_OrderTerm       |  | The length of time an equity order is enforced. Options are: <ul style="list-style-type: none"> <li>• GOOD_UNTIL_CANCEL</li> <li>• GOOD_FOR_DAY</li> <li>• IMMEDIATE_OR_CANCEL (Only for Limit Orders)</li> <li>• FILL_OR_KILL (Only for Limit Orders)</li> </ul> |

- **CChangeOptionOrderResponse GetPlaceChangeOptionOrder(CChangeOptionOrderRequest ChangeOptionOrderRequestObj) throw (...)**

Function executes a change option order request

```

class CChangeOrderBase
{
    CString      m_AccountId;
    long long    m_OrderNum;
    CString      m_ClientOrderId;
    double       m_LimitPrice;
    long long    m_PreviewId;
    double       m_StopPrice;
    CString      m_AllOrNone;
    CString      m_Quantity;
    CString      m_ReserveOrder;
    long long    m_ReserveQuantity;
};

class CChangeOptionOrderRequest : public CChangeOrderBase
{
    double m_StopLimitPrice;
    CString m_PriceType;

```

```
CString m_OrderTerm;
};
```

| Type      | Name              | Default | Description  |
|-----------|-------------------|---------|--|
| CString   | m_AccountId       |         | The 8-digit account number assigned to the user.   |
| long long | m_OrderNum        |         | Number assigned to the user for a request.   |
| CString   | m_ClientOrderId   |         | String value assigned to the order by the client. This must be a unique value that is 20 characters or less.   |
| double    | m_LimitPrice      |         | The price at which to buy a share at or below a certain price, or sell the stock when it reaches a specified price.<br>Note: required if priceType is LIMIT  |
| long long | m_PreviewId       |         | When using PreviewOptionOrder to obtain information on cost, commission, and other data, the preview ID is provided.   |
| double    | m_StopPrice       |         | The price at which a contract is to be bought or sold if specified in a limit order.<br>Note: required if priceType is STOP  |
| CString   | m_AllOrNone       |         | For all account types, this designates that all shares must be executed at once. Options are: <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul>  |
| CString   | m_Quantity        |         | The number of shares (stock) specified in the equity order to be bought or sold.   |
| CString   | m_ReserveOrder    |         | Displays only a certain number of shares (reserve quantity) in the market, even though the order is actually much larger. Options are: <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul> Note: This is case insensitive. |
| long long | m_ReserveQuantity |         | The number of shares displayed for a reserve order.<br>Note: reserveQuantity is required if reserveOrder is True   |
|           |                   |         |  |
| double    | m_StopLimitPrice  |         | The price for the stop and limit sides of the order.<br>Note: required if priceType is STOP_LIMIT.   |
| CString   | m_PriceType       |         | The type of pricing specified in the option order. Options are:  |

|         |             |  |   |
|---------|-------------|--|---|
|         |             |  | <ul style="list-style-type: none"> <li>• MARKET</li> <li>• STOP</li> <li>• LIMIT</li> <li>• STOP_LIMIT</li> </ul>   |
| CString | m_OrderTerm |  | The length of time an equity order is enforced. Options are: <ul style="list-style-type: none"> <li>• GOOD_UNTIL_CANCEL</li> <li>• GOOD_FOR_DAY</li> <li>• IMMEDIATE_OR_CANCEL (Only for Limit Orders)</li> <li>• FILL_OR_KILL (Only for Limit Orders)</li> </ul> |

- **CCancelOrderResponse GetCancelOrder(CCancelOrderRequest CancelOrderRequestObj) throw (...)**

Function submits a cancel request for the indicated order.

```
class CChangeOrderBase
{
    CString      m_AccountId;
    long long    m_OrderNum;
    CString      m_ClientOrderId;
    double       m_LimitPrice;
    long long    m_PreviewId;
    double       m_StopPrice;
    CString      m_AllOrNone;
    CString      m_Quantity;
    CString      m_ReserveOrder;
    long long    m_ReserveQuantity;
};
```

```
class CChangeOptionOrderRequest : public CChangeOrderBase
{
    double       m_StopLimitPrice;
    CString      m_PriceType;
    CString      m_OrderTerm;
};
```

| Type      | Name            | Default | Description                                      |
|-----------|-----------------|---------|--|
| CString   | m_AccountId     |         | The 8-digit account number assigned to the user. |
| long long | m_OrderNum      |         | Number assigned to the user for a request        |
| CString   | m_ClientOrderId |         | Not Required.                                    |
| double    | m_LimitPrice    |         | Not Required.                                    |
| long long | m_PreviewId     |         | Not Required.                                    |
| double    | m_StopPrice     |         | Not Required.                                    |
| CString   | m_AllOrNone     |         | Not Required.                                    |
| CString   | m_Quantity      |         | Not Required.                                    |
| CString   | m_ReserveOrder  |         | Not Required.                                    |

|           |                   |  |               |
|-----------|-------------------|--|---------------|
| long long | m_ReserveQuantity |  | Not Required. |
|           |                   |  |               |
| double    | m_StopLimitPrice  |  | Not Required. |
| CString   | m_PriceType       |  | Not Required. |
| CString   | m_OrderTerm       |  | Not Required. |

## Code Snippets

How to call GetOrderList function?

```
CClientDetails clientDetails;

clientDetails.SetConsumerKey("b011789d5cd732734bc69dedff8e263b");
clientDetails.SetConsumerSecret("98b373d1e5e9c411ef52d35419bb01bb");
clientDetails.SetToken("uiiGNI0e5EZn93dbZq0a9mGyp7QLsN%2BisYnpfrR8Vr4%3D");
clientDetails.SetTokenSecret("ndFgwZXFMsu3f81krleYfRUerZYiC%2FJxevp3n2R6MvA%3D");

COrderSDK ObjOrderSDK(clientDetails);

COrderListRequest OrderListRequest;
COrderListResponse OrderListResponse;

OrderListRequest.SetAccountId("12345678");
OrderListRequest.SetCount(10);
OrderListResponse = ObjOrderSDK.GetOrderList(OrderListRequest);
```

How to call GetPreviewEquityOrder function?

```
CClientDetails clientDetails;

clientDetails.SetConsumerKey("b011789d5cd732734bc69dedff8e263b");
clientDetails.SetConsumerSecret("98b373d1e5e9c411ef52d35419bb01bb");
clientDetails.SetToken("uiiGNI0e5EZn93dbZq0a9mGyp7QLsN%2BisYnpfrR8Vr4%3D");
clientDetails.SetTokenSecret("ndFgwZXFMsu3f81krleYfRUerZYiC%2FJxevp3n2R6MvA%3D");

COrderSDK ObjOrderSDK(clientDetails);

CEquityOrderRequest EquityOrderRequest;
CEquityOrderResponse EquityOrderResponse;

EquityOrderRequest.SetAccountId("83406334");
EquityOrderRequest.SetLimitPrice(540) ;
EquityOrderRequest.SetStopPrice(540) ;
EquityOrderRequest.SetLimitPrice(540) ;

EquityOrderRequest.SetQuantity(500) ;
EquityOrderRequest.SetSymbol("GOOG");
EquityOrderRequest.SetOrderAction("BUY");
EquityOrderRequest.SetPriceType("STOP");
EquityOrderRequest.SetMarketSession("REGULAR") ;
EquityOrderRequest.SetOrderTerm("GOOD_FOR_DAY");
EquityOrderRequest.SetClientOrderId("random123456") ;

EquityOrderResponse = ObjOrderSDK.GetPreviewEquityOrder(EquityOrderRequest);
```

How to call GetCancelOrder function?

```

CClientDetails clientDetails;

clientDetails.SetConsumerKey("b011789d5cd732734bc69dedff8e263b");
clientDetails.SetConsumerSecret("98b373d1e5e9c411ef52d35419bb01bb");
clientDetails.SetToken("uiiGNI0e5EZn93dbZq0a9mGyp7QLsN%2BisYnpfrR8Vr4%3D");
clientDetails.SetTokenSecret("ndFgwZXFmSu3f81kr1eYfRUerZYiC%2FJxevp3n2R6MvA%3D");

COrderSDK ObjOrderSDK(clientDetails);

CCancelOrderRequest CancelOrderRequest;
CCancelOrderResponse CancelOrderResponse;

CancelOrderRequest.SetAccountId(OrderInputObj.m_EditBox1);
CancelOrderRequest.SetOrderNum(atoi(OrderInputObj.m_EditBox2)) ;

CancelOrderResponse = ObjOrderSDK.GetCancelOrder(CancelOrderRequest);

```

### Common Exception for all SDK functions.

```

class CExceptionSDK
{
    int m_nHTTPErrCode;
    int m_nErrorCode;
    CString m_strErrorMsg;
};

class CError
{
    int m_nHTTPErrCode;
    int m_nErrorCode;
    CString m_strErrorMsg;
};

```

| Type | Name           | Default | Description   |
|------|----------------|---------|---|
| Int  | m_nHTTPErrCode |         | Http error response code.   |
| Int  | m_nErrorCode   |         | SDK Error code.<br>ERROR_ENVIRONMENT_EMPTY 1001<br>ERROR_COMSUMER_KEY_EMPTY 1002<br>ERROR_COMSUMER_SECRET_EMPTY 1003<br>ERROR_REQUEST_TOKEN_EMPTY 1004<br>ERROR_REQUEST_TOKEN_SECRET_EMPTY 1005<br>ERROR_ACCESS_TOKEN_EMPTY 1006<br>ERROR_ACCESS_TOKEN_SECRET_EMPTY 1007<br>ERROR_VERIFIER_EMPTY 1008<br>ERROR_URL_EMPTY 1009<br>ERROR_POST_PARAM_EMPTY 1010<br>ERROR_ACCOUNT_ID_EMPTY 2000<br>ERROR_NO_OF_POSITION_EMPTY 2001<br>ERROR_ALERT_ID_EMPTY 2002<br>ERROR_XML_PARSING 5000<br>ERROR_SYMBOL_EMPTY 3000<br>ERROR_COMPANY_NAME_EMPTY 3001<br>ERROR_TYPE_EMPTY 3002<br>ERROR_SYMBOL_KEY_EMPTY 3003 |



|         |               |  |                              |      |
|---------|---------------|--|------------------------------|------|
|         |               |  | ERROR_MISSING_REQUIRED_FIELD | 5000 |
| CString | m_strErrorMsg |  | Error message.               |      |