

# EASYLENGUAGE cheat sheet for TradeStation and MultiCharts

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## Basic Syntax

```
input: myInput(1.75);

variable: myVariable(0),buyLevel(0),
shortLevel(999999),myCondition(False);
// single line comment
if Close > Open then
    myVariable = high-low;

{ multi line comment-
    use begin and end for multiple line if-then}
if close > high[1] then
begin
    myCondition = True;
    buyLevel = high + myInput * myVariable;
end;
```

Keyword	Meaning
Close or C	Today's close
Close[1] or C[1] or C[2]	Yesterday's close—day before Yes.
Date or D, Time or T	Date or Time of Current Bar
Open or O	Today's Open—use [1] or [2] or [N]
High or H	Today's High—use [1] or [2] or [N]
Low or L	Today's Low—use [1] or [2] or [N]
Volume or V	Today's Volume—use [1] or [2] or [N]
OpInt	Today's Open Interest if applicable

Order Type	Order Directive Syntax—Notice the use of	Location of execution
Market on Close	Buy this market on close; SellShort this market on close; Sell this market on close; BuytoCover this market on close;	Execute on the current bar's close price
Market at Open	Buy next bar on open; SellShort next bar on open; Sell next bar on open; BuytoCover next bar on open;	Execute on the next bar's open price
Stop	Buy next bar at 50.00 stop; SellShort next bar at 48.00 stop; Sell next bar at 48.00 stop;	Execute on the next bar at the specified price. Filled at price
Limit	Buy next bar at 48.00 limit; SellShort next bar at 52.00 limit; Sell next bar at at 50.00 limit; BuyToCover next bar at 48.00 limit;	Execute on the next bar at the specified price. Filled at price or better.

## Order Directives

**Buy**—initiate a long position  
**Sell Short**—initiate a short position  
**Sell**—flatten a long position  
**BuyToCover**—flatten a short position

Best practice include a signal name:  
Buy("myBuySig") next bat at 50.00 stop

## Data Types

**Variables take on the type when initiated.**  
Types are integer/float, Boolean, String

**Variable:**  
toggle(True), \\ Boolean  
buyLevel(0),perAmt(0.55) \\ Integer and float  
aString("Hello"); \\ String

## Semicolon

**In EasyLanguage all statements must end with a semicolon (;)**

Operator	Meaning
+ - * /	Addition, Subtraction, Multiplication, Division
=	Assignment or Equality Comparison
<>	Not equal
>, <	Greater than, Less than
>=, <=	Greater/less than or equal
And	Logical AND
Or	Logical OR
Not	Logical NOT
Power(x, y)	Raises x to the power of y
Mod(x, y)	Returns remainder of x divided by y
+=	Increment and assign
-=	Decrement and assign
*=	Multiply and assign
/=	Divide and assign

## Debugging with the Print

Assume you have a bug in your code and need to print out the close and your value.  
**print(date, " ", close:5:5, " ", myValue:5:5);**  
This will print out with 5 decimal places—many currency futures have 5 decimal places.

# EASYLEARNING FOR TRADESTATION AND MULTICHARTS

Function	Parameters	Description	
BollingerBand(price, length, devs)	price, length, devs can be + or neg. value	Calculates upper, lower, or middle Bollinger Band.	<b>//Moving Average Crossover</b> Inputs: FastLen(9), SlowLen(21); Variables: FastMA(0), SlowMA(0);  FastMA = Average(Close, FastLen); SlowMA = Average(Close, SlowLen);  If FastMA Crosses Above SlowMA Then Buy ("CrossBuy") Next Bar at Market; If FastMA Crosses Below SlowMA Then Sell Short ("CrossSell") Next Bar at Market  <b>//ATR based Stop</b> Inputs: ATRLength(14), ATRMultiplier(2.0); Variables: ATRValue(0), StopLevel(0);  ATRValue = AvgTrueRange(ATRLength); StopLevel = close - (ATRMultiplier * ATRValue);  If MarketPosition = 1 Then Sell ("ATRExit") Next Bar at StopLevel Stop;  <b>//Dollar based Stop and Profit</b> Inputs: StopLoss\$(500),ProfitTarg\$(1000); Variables: ATRValue(0), StopLevel(0);  If c < c[1] Then Buy("DownCloseB") next bat at high stop; SetStopLoss(stopLoss\$); SetProfitTarget(profitTarg\$);  <b>IF-THEN-ELSE</b> If condition1 Then result = "A" Else Then result = "B";  <b>IF-THEN-ELSE IF-ELSE</b> If condition1 Then result = "A" Else If condition2 Then result = "B" Else result = "C";
Average(price, length)	price, length	Computes the average (moving average) of price over length bars.	
Highest(price, length)	price, length	Finds the highest value over length bars.	
Lowest(price, length)	price, length	Finds the lowest value over length bars.	
CrossesAbove(series1, series2)	series1, series2	Returns true when series1 crosses above series2.	
CrossesBelow(series1, series2)	series1, series2	Returns true when series1 crosses below series2.	
StdDev(price, length)	price, length	Calculates the standard deviation of price over length bars.	
RSI(price, length)	price, length	Computes the Relative Strength Index.	
MACD(price, fastLength, slowLength)	price, fastLength, slowLength	Calculates the MACD value.	
ADX(length)	length	Computes the Average Directional Movement Index.	
AvgTrueRange(length)	length	Calculates the Average True Range over length days.	
Log(value)	value	Returns the natural logarithm of a value.	
SetStopContract, SetStopShare	No argument	Sets the stop loss amount on a contract or share basis	
SetStopLoss(value)	value = dollars	Protective stop in terms of \$s	
SetProfitTarget(value)	value= dollars	Profit objective in terms of \$s	
SetDollarTrailing(value)	value = dollars	Trail stop from max. profit — terms of \$s	
SetPercentTrailing(value1,value2)	value1 = dollars value2 = decimal	Engage a trailing stop after value1 dollars is reached and trail maximum profit by a percent represented by value2	

## //Bollinger Band Complete System

inputs: Length(20), NumDevs(2), StopLoss(1000), ProfitTarget(2000);  
 variables: UpperBand(0), LowerBand(0), MiddleBand(0);

MiddleBand = BollingerBand(Close, Length, 0);  
 UpperBand = BollingerBand(Close, Length, NumDevs);  
 LowerBand = BollingerBand(Close, Length, -NumDevs);  
 If Close > UpperBand Then  
     Buy ("BollingerBuy") Next Bar at Market;



If Close < LowerBand Then  
     Sell Short ("BollingerSell") Next Bar at Market;  
 If MarketPosition = 1 And Close < MiddleBand Then  
     Sell ("L-exit") Next Bar at Market;  
 If MarketPosition = -1 And Close > MiddleBand Then  
     BuyToCover ("S-exit") Next Bar at Market;  
  
 SetStopLoss(StopLoss);  
 SetProfitTarget(ProfitTarget);